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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA US 2007027636 A1 20070201 US 2006-496982 20060731 US 2006-603406 US 2007184467 Α1 20070809 20061122 A1
US 2005-742305P
US 2005-754396P
US 2006-774976P
US 2006-789506P
US 2006-817741P
US 2006-496982

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US 2006-846610P P 20060922 US 2005-703415P P 20050729 US 2006-846589P P 20060922

AΒ The present invention provides systems and methods for genotyping single nucleotide polymorphisms in genes and predicting likely phenotypic outcomes using math. models, given genetic, phenotypic and/or clin. data of an individual, and also relevant aggregated medical data consisting of genotypic, phenotypic, and/or clin. data from germane patient subpopulations. Genetic data for the target individual is acquired and amplified using known methods, and poorly measured base pairs, missing alleles and missing regions are reconstructed using expected similarities between the target genome and the genome of genetically related subjects. In one embodiment of the invention, incomplete genetic data from an embryonic cell is reconstructed using the more complete genetic data from a larger sample of diploid cells from one or both parents, with or without genetic data from haploid cells from one or both parents, and/or genetic data taken from other related individuals. In another embodiment, incomplete genetic data from a fetus is acquired from fetal cells, or cell-free fetal DNA isolated from the mother's blood, and the incomplete genetic data is reconstructed using the more complete genetic data from a larger sample diploid cells from one or both parents, with or without genetic data from haploid cells from one or both parents, and/or genetic data taken from other related individuals. In another embodiment, the genetic data can be reconstructed for the purposes of making phenotypic predictions. In another embodiment, the genetic data can be used to detect for aneuploides and uniparental disomy. In another embodiment, phenotypic predictions may be made using models based on contingency tables for genetic data that can be constructed from data available in genomic databases. In another embodiment, a plurality of models are created and tested using a set of test data, and the prediction is made using the model that is identified as the most accurate.

L3 ANSWER 2 OF 41 MEDLINE on STN DUPLICATE 1 Full Text 2007301660 ΑN MEDLINE PubMed ID: 17512363 Multiple less common genetic variants explain the association of the ΤI cholesteryl ester transfer protein gene with coronary artery disease. ΑU Horne Benjamin D; Camp Nicola J; Anderson Jeffrey L; Mower Chrissa P; Clarke Jessica L; Kolek Matthew J; Carlquist John F CS Cardiovascular Department, LDS Hospital, Intermountain Medical Center, University of Utah, Salt Lake City, Utah 84143, USA. (Intermountain Heart Collaborative Study Group). benjamin.horne@intermountainmail.org NC CA098364 (United States NCI) CA099844 (United States NCI) HL071878 (United States NHLBI) HL073117 (United States NHLBI) Journal of the American College of Cardiology, (2007 May 22) Vol. 49, No. 20, pp. 2053-60. Electronic Publication: 2007-05-04. SO Journal code: 8301365. E-ISSN: 1558-3597. United States CY Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., EXTRAMURAL) DT(RESEARCH SUPPORT, NON-U.S. GOV'T) LA Abridged Index Medicus Journals; Priority Journals FS CLINICALTRIALS.GOV FS NCT00406185 NCT EM200706 Entered STN: 22 May 2007 ED Last Updated on STN: 28 Jun 2007 Entered Medline: 27 Jun 2007 OBJECTIVES: The objective of this study was to identify associations of the cholesteryl ester transfer protein (CETP) gene with coronary artery disease (CAD) with tagging (t) single nucleotide polymorphisms (SNPs) chosen to optimally account for intra-genic variation. BACKGROUND: The

CETP gene plays a critical role in lipoprotein metabolism, but the common

nondiabetic nonsmoking patients (n = 4,811) with angiographically defined, clinically significant CAD (> or =70% stenosis) or normal coronaries were genotyped for 11 CETP tSNPs. Myocardial infarction (MI) and lipid levels

and well-studied TaqIB variant is inconsistently predictive of CAD. METHODS: From a deoxyribonucleic acid bank of 10,020 individuals,

were evaluated as secondary end points. RESULTS: Analysis of single tSNPs, corrected for multiple comparisons (p < 0.00485), identified allele +1086A to be associated with CAD (p = 0.0034). Suggestive allelic and significant genotypic associations were found for -631AA (odds ratio [OR] = 3.95, p = 0.004 vs. CC) and +2389GA (OR = 1.21, p = 0.003 vs. GG). Haplotype analysis by linkage disequilibrium (LD) group revealed a CAD association for LD group B (p = 0.0025 across T+1086A, C+878T, C+408T) and near significance for LD group A (p = 0.013 across C-631A, MspI, G+2389A). A weak protective trend for TaqIB was eliminated by adjustment for other tSNPs, and haplotype analyses suggested that TaqIB was simply a marker for other tSNPs or haplotypes. No tSNP or haplotype associations with MI were found. CONCLUSIONS: Multiple, less common SNPs and haplotype variants underlie CETP-related CAD risk, for which the common TaqIB variant is simply a poor marker. The occurrence of risk-related variants on separate haplotypes suggests genetic-risk complexity and allelic heterogeneity. (Database Registry of the Intermountain Heart Collaborative Study; http://clinicaltrials.gov/ct/show/NCT00406185?order=1; NCT00406185).

L3 ANSWER 3 OF 41 MEDLINE on STN DUPLICATE 2 Full Text 2007295209 ΑN MEDLINE PubMed ID: 17412754 DN Signatures of recent positive selection at the ATP-binding cassette drug ΤI transporter superfamily gene loci. ΑU Wang Zihua; Wang Jingbo; Tantoso Erwin; Wang Baoshuang; Tai Amy Y P; Ooi London L P J; Chong Samuel S; Lee Caroline G L CS Department of Biochemistry, Yong Loo LinSchool of Medicine, National University of Singapore, Singapore. Human molecular genetics, (2007 Jun 1) Vol. 16, No. 11, pp. 1367-80. SO Electronic Publication: 2007-04-05. Journal code: 9208958. ISSN: 0964-6906. CY England: United Kingdom DT(COMPARATIVE STUDY) Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) (VALIDATION STUDIES) English LA FS Priority Journals 200709 EMEntered STN: 18 May 2007 ΕD Last Updated on STN: 28 Sep 2007 Entered Medline: 27 Sep 2007

AΒ Members of the ATP-binding cassette (ABC) superfamily of transporters have been implicated as major players in drug response. Single nucleotide polymorphisms (SNPs) in the ABC transporter genes may account for variation in drug response between individuals. Given the abundance of  ${\tt SNPs}$  within the human genome, identification of functionally important SNPs is difficult. Here, we utilized signatures of recent positive selection (RPS) to identify SNPs in ABC genes that have potential functional significance by using the long-range-haplotype test to search for signatures of RPS at 18 ABC genes involved in **drug** transport. From the genotype data of these 18 ABC genes in four populations extracted from the HapMap database, at least one SNP in each of these genes displayed genomic signatures of RPS in at least one population. However, only 13  ${f SNPs}$  in 10 ABC genes from three populations retained statistical significance after Type I error reduction. The functional significance of six of these RPS **SNPs**, including those that failed multiple testing correction (MTC), has been reported previously. We experimentally confirmed a functional effect for two SNPs, including one that failed to show evidence of RPS after MTC. These observations suggest that Type I error reduction may inadvertently increase Type II error. Although the remaining positively selected SNPs have yet to be functionally validated, our study illustrates the feasibility of using this strategy to identify SNPs within 'adaptive' genes that may confer functional effect, prior to testing their roles in individual/population drug response variation or in complex disease susceptibility.

L3 ANSWER 4 OF 41 MEDLINE on STN Full Text
AN 2007488866 MEDLINE
DN PubMed ID: 17597650

- TI Comprehensive genetic variant discovery in the surfactant protein B gene.
- AU Hamvas Aaron; Wegner Daniel J; Carlson Christopher S; Bergmann Kelly R; Trusgnich Michelle A; Fulton Lucinda; Kasai Yumi; An Ping; Mardis Elaine R; Wilson Richard K; Cole F Sessions
- CS Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine and St. Louis Children's Hospital, St. Louis, Missouri 63110, USA.
- NC R01 HL 065174 (United States NHLBI) R01 HL 065385 (United States NHLBI) U54 HG 003079 (United States NHGRI)
- SO Pediatric research, (2007 Aug) Vol. 62, No. 2, pp. 170-5. Journal code: 0100714. ISSN: 0031-3998.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
  (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
  (RESEARCH SUPPORT, NON-U.S. GOV'T)
- LA English
- FS Priority Journals
- EM 200709
- ED Entered STN: 22 Aug 2007 Last Updated on STN: 20 Sep 2007 Entered Medline: 19 Sep 2007
- Completely penetrant mutations in the surfactant protein B gene (SFTPB) AΒ and >75% reduction of SFTPB expression disrupt pulmonary surfactant function and cause neonatal respiratory distress syndrome. To inform studies of genetic regulation of SFTPB expression, we created a catalogue of SFTPB variants by comprehensive resequencing from an unselected, population-based cohort (n = 1,116). We found an excess of low-frequency variation [81 **SNPs** and five small insertion/deletions (in/dels)]. Despite its small genomic size (9.7 kb), SFTPB was characterized by weak linkage disequilibrium (LD) and high haplotype diversity. Using the HapMap Yoruban and European populations, we identified a recombination hot spot that spans SFTPB, was not detectable in our focused resequencing data, and accounts for weak LD. Using homology-based software tools, we discovered no definitively damaging exonic variants. We conclude that excess low-frequency variation, intragenic recombination and lack of common disruptive exonic variants favor complete resequencing as the optimal approach for genetic association studies to identify regulatory SFTPB variants that cause neonatal respiratory distress syndrome in genetically diverse populations.
- L3 ANSWER 5 OF 41 MEDLINE on STN

## Full Text

- AN 2007397747 MEDLINE
- DN PubMed ID: 17446335
- TI The SERPINE2 gene is associated with chronic obstructive pulmonary disease in two large populations.
- AU Zhu Guohua; Warren Liling; Aponte Jennifer; Gulsvik Amund; Bakke Per; Anderson Wayne H; Lomas David A; Silverman Edwin K; Pillai Sreekumar G
- CS GlaxoSmithKline R&D, 5 Moore Drive, Research Triangle Park, NC 27709, USA. (International COPD Genetics Network (ICGN) Investigators).
- American journal of respiratory and critical care medicine, (2007 Jul 15) Vol. 176, No. 2, pp. 167-73. Electronic Publication: 2007-04-19. Journal code: 9421642. ISSN: 1073-449X.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Abridged Index Medicus Journals; Priority Journals
- EM 200709
- ED Entered STN: 10 Jul 2007 Last Updated on STN: 19 Sep 2007 Entered Medline: 18 Sep 2007
- AB RATIONALE: Chronic obstructive pulmonary **disease** (COPD) is a complex **disease** influenced by multiple genes and environmental factors. A region on chromosome 2q has been shown to be linked to COPD. A positional candidate gene from the chromosome 2q region SERPINE2 (Serpin peptidase inhibitor, clade E [nexin, plasminogen activator inhibitor type 1], member 2), was previously evaluated as a susceptibility gene for COPD in two association studies, but the results were contradictory. OBJECTIVES: To **identify** the relationship between SERPINE2 polymorphisms and COPD-related phenotypes using family-based and case-control association studies. METHODS: In the present study, we genotyped 25 single nucleotide

polymorphisms (SNPs) from SERPINE2 and analyzed qualitative and quantitative COPD phenotypes in 635 pedigrees with 1,910 individuals and an independent case-control population that included 973 COPD cases and 956 control subjects. The family data were analyzed using family-based association tests. The case-control data were analyzed using logistic regression and linear models. MEASUREMENTS AND MAIN RESULTS: Six SNPs demonstrated significant associations with COPD phenotypes in the family-based association analysis (0.0016<or=p<or=0.042). Five of these SNPs demonstrated replicated associations in the case-control analysis (0.021<or=p<or=0.031). In addition, the results of haplotype analyses supported the results from single SNP analyses. CONCLUSIONS: These data provide further support for SERPINE2 as a COPD susceptibility gene.

L3 ANSWER 6 OF 41 MEDLINE on STN DUPLICATE 3 Full Text 2007527023 MEDLINE ΑN PubMed ID: 17689071 TΙ Human 3beta-hydroxysteroid dehydrogenase types 1 and 2: Gene sequence variation and functional genomics. Wang Liewei; Salavaggione Ezequiel; Pelleymounter Linda; Eckloff Bruce; ΑU Wieben Eric; Weinshilboum Richard Division of Clinical Pharmacology, Department of Molecular Pharmacology CS and Experimental Therapeutics, Mayo Clinic College of Medicine, 200 First Street SW, Rochester, MN 55905, USA.. wang.liewei@mayo.edu

NC R01 GM28157 (United States NIGMS) R01 GM35720 (United States NIGMS) U01 GM61388 (United States NIGMS)

SO The Journal of steroid biochemistry and molecular biology, (2007 Oct) Vol. 107, No. 1-2, pp. 88-99. Electronic Publication: 2007-06-08. Journal code: 9015483. ISSN: 0960-0760.

CY England: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LA English

FS Priority Journals

EM 200712

- ED Entered STN: 11 Sep 2007 Last Updated on STN: 28 Dec 2007 Entered Medline: 27 Dec 2007
- The 3beta-hydroxysteroid dehydrogenase/Delta(5)-Delta(4) isomerase AΒ isoenzymes 1 and 2 (HSD3B1 and HSD3B2) are membrane-bound enzymes that play essential roles in the biosynthesis of steroid hormones. Therefore, variation in the HSD3B1 and HSD3B2 genes might play a role in the pathophysiology of steroid hormone-related disease. We set out to systematically identify common polymorphisms and haplotypes in human HSD3B1 and HSD3B2. We identified 17 single nucleotide polymorphisms (SNPs) in HSD3B1 and 9 in HSD3B2 - the majority of which were not present in public databases - by resequencing human HSD3B1 and HSD3B2 using 240 DNA samples from four different ethnic groups (60 samples per group). Functional genomic studies of the five non-synonymous cSNPs in HSD3B1 and the one observed in HSD3B2 showed that two of these polymorphisms resulted in significant decreases in the quantity of enzyme protein expressed. However, none of the three non-synonymous SNPs located in areas encoding putative membrane-binding domains altered subcellular localization of the enzyme as determined by immunofluorescence microscopy. Finally, common variant haplotypes in the 5'-flanking regions of these genes showed significant cell line-dependent variation in their ability to drive transcription. In aggregate, these results provide a basis for study of the possible role in human **disease** of common genetic variation in HSD3B1 and HSD3B2.
- L3 ANSWER 7 OF 41 MEDLINE on STN DUPLICATE 4
  Full Text

AN 2006749214 MEDLINE

- DN PubMed ID: 17172834
- TI Integration of HapMap-based  ${\bf SNP}$  pattern analysis and gene expression profiling reveals common  ${\bf SNP}$  profiles for cancer therapy outcome predictor genes.
- AU Glinsky Gennadi V
- CS Ordway Cancer Center, Ordway Research Institute, Inc., Albany, New York 12208, USA.. gglinsky@ordwayresearch.org

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NC 5R01 CA89827 (United States NCI)
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SO Cell cycle (Georgetown, Tex.), (2006 Nov) Vol. 5, No. 22, pp. 2613-25. Electronic Publication: 2006-11-15.

Journal code: 101137841. E-ISSN: 1551-4005. CY United States

DT Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LA English

FS Priority Journals

EM 200702

ED Entered STN: 27 Dec 2006
Last Updated on STN: 13 Feb 2007
Entered Medline: 12 Feb 2007

Recent completion of the initial phase of a **haplotype** map of human AΒ genome (www.hapmap.org) provides opportunity for integrative analysis on a genome-wide scale of microarray-based gene expression profiling and SNP variation patterns for discovery of cancer-causing genes and genetic markers of therapy outcome. Here we applied this approach for analysis of  ${f SNPs}$  of cancer-associated genes, expression profiles of which predicts the likelihood of treatment failure and death after therapy in patients diagnosed with multiple types of cancer. Unexpectedly, this analysis reveals a common SNP pattern for a majority (60 of 74; 81%) of analyzed cancer treatment outcome predictor (CTOP) genes. Our analysis suggests that heritable germ-line genetic variations driven by geographically localized form of natural selection determining population differentiations may have a significant impact on cancer treatment outcome by influencing the individual's gene expression profile. We demonstrate a translational utility of this approach by building a highly informative CTOP algorithm combining prognostic power of multiple gene expression-based CTOP models derived from signatures of oncogenic pathways associated with activation of BMI1; Myc; Her2/neu; Ras; beta-catenin; Suz12; E2F; and CCND1 oncogenes. Application of a CTOP algorithm to large databases of early-stage breast and prostate tumors identifies cancer patients with 100% probability of a cure with existing cancer therapies as well as patients with nearly 100% likelihood of treatment failure, thus providing a clinically feasible framework essential for introduction of rational evidence-based individualized therapy selection and prescription protocols. Our analysis indicates that genetic determinants of human disease susceptibility and severity are encoded by population differentiation SNP variants. Evolution of these SNPs is driven by geographically-localized form of natural selection causing population differentiation. Recent analysis identifies a class of SNPs regulating gene expression in normal individuals and likely determining unique genome-wide expression profiles of each individual. We propose that critical disease-causing combinations of SNP variants arise from SNPs regulating mRNA levels and determining genome-wide haplotype patterns of individual's disease susceptibility.

L3 ANSWER 8 OF 41 MEDLINE on STN DUPLICATE 5

<u>Full Text</u>
AN 2006516765 MEDLINE
DN PubMed ID: 16865697
TI Ethnic variation in AMD-associated complement factor H polymorphism

TI Ethnic variation in AMD-associated complement factor H polymorphism p.Tyr402His.

- AU Grassi Michael A; Fingert John H; Scheetz Todd E; Roos Benjamin R; Ritch Robert; West Sheila K; Kawase Kazuhide; Shire Abdirashid M; Mullins Robert F; Stone Edwin M
- CS Department of Ophthalmology and Visual Sciences, Carver College of Medicine, University of Iowa, Iowa City 52242, USA.
- Medicine, University of Iowa, Iowa City 52242, USA.

  SO Human mutation, (2006 Sep) Vol. 27, No. 9, pp. 921-5.

  Journal code: 9215429. E-ISSN: 1098-1004.

CY United States

DT (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LA English

FS Priority Journals

EM 200610

ED Entered STN: 31 Aug 2006 Last Updated on STN: 24 Oct 2006 Entered Medline: 24 Oct 2006 AB Age-related macular degeneration (AMD) is the most common cause of irreversible visual loss in the developed world. Previous studies have demonstrated that the c.1204T>C, p.Tyr402His allelic variant in the complement factor H (CFH) gene is associated with an approximately three-fold increased risk for AMD in Caucasians of predominantly European descent. Both the prevalence as well as the phenotypic spectrum of AMD varies widely among persons of different ethnicities. We hypothesized that populations with a lower prevalence of AMD might also have a lower prevalence of the CFH risk allele. In this study we sought to determine the frequency of this sequence variant in control populations of Caucasians, African Americans, Hispanics, Somalis, and Japanese. control populations were assembled for each ethnic group: Caucasian (n=148), Somali (n=128), African American (n=75), Hispanic (n=81), and Japanese (n=82). Individuals were genotyped using a restriction digest assay and the frequency of the C allele at nucleotide position 1204 of the CFH gene was determined. A bioinformatic approach was used to identify SNPs in linkage disequilibrium with rs1061170 (c.1204T>C, p.Tyr402His) from the human haplotype map project database (HapMap) in order to validate the findings. We found widely discordant frequencies of the risk allele between some of the different ethnic groups: Japanese 0.07+/-0.02, Hispanics 0.17+/-0.03, African-Americans 0.35+/-0.04, Caucasians 0.34+/-0.03, and Somalis 0.34+/-0.03. Allele frequencies generated by analysis of the HapMap **database** were consistent with these findings. This study suggests that there are other yet unidentified genetic factors important in the pathogenesis of AMD that may mitigate the effects of c.1204T>C, p.Tyr402His variant.

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L3 ANSWER 9 OF 41 MEDLINE on STN DUPLICATE 6

Full Text

2006648145 ΑN MEDLINE

PubMed ID: 16955255

- ΤI Association study on chromosome 20q11.21-13.13 locus and its contribution to type 2 diabetes susceptibility in Japanese.
- Tanahashi Toshihito; Osabe Dai; Nomura Kyoko; Shinohara Shuichi; Kato ΑU Hitoshi; Ichiishi Eiichiro; Nakamura Naoto; Yoshikawa Toshikazu; Takata Yoichiro; Miyamoto Tatsuro; Shiota Hiroshi; Keshavarz Parvaneh; Yamaguchi Yuka; Kunika Kiyoshi; Moritani Maki; Inoue Hiroshi; Itakura Mitsuo
- CS Division of Genetic Information, Institute for Genome Research, The University of Tokushima, 3-18-15, Tokushima, Japan.
- Human genetics, (2006 Nov) Vol. 120, No. 4, pp. 527-42. Electronic SO Publication: 2006-09-06. Journal code: 7613873. ISSN: 0340-6717.
- CY
- Germany: Germany, Federal Republic of Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) DT
- LA English
- FS Priority Journals
- EΜ 200704
- ED Entered STN: 4 Nov 2006 Last Updated on STN: 1 May 2007 Entered Medline: 30 Apr 2007
- Several linkage studies have predicted that human chromosome 20q is AΒ closely related to type 2 diabetes, but there is no clear evidence that certain variant(s) or gene(s) have strong effects on the disease within this region. To examine disease susceptibility variant in Japanese, verified SNPs from the databases, with a minor allele frequency larger than 0.15, were selected at 10-kb intervals across a 19.31-Mb region (20q11.21-13.13), which contained 291 genes, including hepatocyte nuclear factor 4alpha (HNF4alpha). As a result, a total of 1,147 SNPs were genotyped with TaqMan assay using 1,818 Japanese samples. By searching for HNF4alpha as a representative disease-susceptible gene, no variants of HNF4alpha were strongly associated with disease. To identify other genetic variant related with disease, we designed an extensive two-stage association study (725 first and 1,093 second test samples). Although SNP1146 (rs220076) was selected as a landmark within the 19.31 Mb region, the magnitude of the nominal P value (P = 0.0023) was rather weak. Subsequently, a haplotype-based association study showed that two common haplotypes were weakly associated with disease. All of these tests resulted in non-significance after adjusting for Bonferroni's correction and the false discovery rate to control for the impact of multiple testing. Contrary to the initial expectations, we could not conclude that

certain **SNPs** had a major effect on this promising locus within the framework presented here. As a way to extend our observations, we emphasize the importance of a subsequent association study including replication and/or meta-analysis in multiple populations.

- ANSWER 10 OF 41 MEDLINE on STN L3 2006725692 MEDLINE ΑN DN PubMed ID: 17137522 ΤI iHAP--integrated haplotype analysis pipeline for characterizing the haplotype structure of genes. Song Chun Meng; Yeo Boon Huat; Tantoso Erwin; Yang Yuchen; Lim Yun Ping; ΑU Li Kuo-Bin; Rajagopal Gunaretnam Bioinformatics Institute, 30 Biopolis Street, #07-01, 138671, Singapore. CS alfreds@bii.a-star.edu.sq. <alfreds@bii.a-star.edu.sq> BMC bioinformatics, (2006) Vol. 7, pp. 525. Electronic Publication: SO 2006-12-01. Journal code: 100965194. E-ISSN: 1471-2105. England: United Kingdom CY Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) DT LA English FS Priority Journals EM 200701 ED Entered STN: 14 Dec 2006 Last Updated on STN: 5 Jan 2007 Entered Medline: 4 Jan 2007 AΒ BACKGROUND: The advent of genotype data from large-scale efforts that
- catalog the genetic variants of different populations have given rise to new avenues for multifactorial **disease** association studies. Recent work shows that genotype data from the International HapMap Project have a high degree of transferability to the wider population. This implies that the design of genotyping studies on local populations may be facilitated through inferences drawn from information contained in HapMap populations. RESULTS: To facilitate analysis of HapMap data for characterizing the haplotype structure of genes or any chromosomal regions, we have developed an integrated web-based resource, iHAP. In addition to incorporating genotype and haplotype data from the International HapMap Project and gene information from the UCSC Genome Browser Database, iHAP also provides capabilities for inferring haplotype blocks and selecting tag SNPs that are representative of haplotype patterns. These include block partitioning algorithms, block definitions, tag SNP definitions, as well as **SNPs** to be "force included" as tags. Based on the parameters defined at the input stage, iHAP performs on-the-fly analysis and displays the result graphically as a webpage. To facilitate analysis, intermediate and final result files can be downloaded. CONCLUSION: The iHAP resource, available at <a href="http://ihap.bii.a-star.edu.sg">http://ihap.bii.a-star.edu.sg</a>, provides a convenient yet flexible approach for the user community to analyze HapMap data and identify candidate targets for genotyping studies.
- ANSWER 11 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN L3 Full Text 2006:325952 CAPLUS AN144:410613 DN ΤI PRKCA and multiple sclerosis: association in two independent populations Saarela, Janna; Kallio, Suvi P.; Chen, Daniel; Montpetit, Alexandre; ΑU Jokiaho, Anne; Choi, Eva; Asselta, Rosanna; Bronnikov, Denis; Lincoln, Matthew R.; Sadovnick, A. Dessa; Tienari, Pentti J.; Koivisto, Keijo; Palotie, Aarno; Ebers, George C.; Hudson, Thomas J.; Peltonen, Leena Department of Molecular Medicine, National Public Health Institute, CS Helsinki, Finland SO PLoS Genetics (2006), 2(3), 364-375CODEN: PGLEB5; ISSN: 1553-7404 URL: <a href="http://genetics.plosjournals.org/archive/1553-7404/2/3/pdf/10.1371">http://genetics.plosjournals.org/archive/1553-7404/2/3/pdf/10.1371</a> 1553-7404 2 3 complete.pdf PΒ Public Library of Science DTJournal; (online computer file)
- LA English

  AB Multiple sclerosis (MS) is a chronic **disease** of the central nervous system responsible for a large portion of neurol. disabilities in young adults. Similar to what occurs in numerous complex **diseases**, both unknown environmental factors and genetic predisposition are required to

generate MS. We ascertained a set of 63 Finnish MS families, originating from a high-risk region of the country, to identify a susceptibility gene within the previously established 3.4-Mb region on 17q24. Initial single nucleotide polymorphism (SNP)-based assocn. implicated PRKCA (protein kinase C alpha) gene, and this assocn. was replicated in an independent set of 148 Finnish MS families (p = 0.0004; remaining significant after correction for multiple testing). Further, a dense set of 211 SNPs evenly covering the PRKCA gene and the flanking regions was selected from the dbSNP database and analyzed in two large, independent MS cohorts: in 211 Finnish and 554 Canadian MS families. A multipoint SNP anal. indicated linkage to PRKCA and its telomeric flanking region in both populations, and SNP haplotype and genotype combination analyses revealed an allelic variant of PRKCA, which covers the region between introns 3 and 8, to be over-represented in Finnish MS cases (odds ratio = 1.34, 95% confidence interval 1.07-1.68). A second allelic variant, covering the same region of the PRKCA gene, showed somewhat stronger evidence for assocn. in the Canadian families (odds ratio = 1.64, 95% confidence interval 1.39-1.94). Initial functional relevance for disease predisposition was suggested by the expression anal.: The transcript levels of PRKCA showed correlation with the copy no. of the Finnish and Canadian "risk" haplotypes in CD4-neg. mononuclear cells of five Finnish multiplex families and in lymphoblast cell lines of 11 Center d'Etude du Polymorphisme Humain (CEPH) individuals of European origin. THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3
    ANSWER 12 OF 41
                         MEDLINE on STN
Full
ΑN
     2006246514
                   MEDLINE
     PubMed ID: 16501185
DN
    An XML-based system for synthesis of data from disparate databases.
TΙ
     Kurc Tahsin; Janies Daniel A; Johnson Andrew D; Langella Stephen; Oster
ΑU
     Scott; Hastings Shannon; Habib Farhat; Camerlengo Terry; Ervin David;
     Catalyurek Umit V; Saltz Joel H
```

CS Biomedical Informatics Department, Ohio State University, 3184 Graves Hall, 333 West 10th Avenue, Columbus, OH 43210, USA.. <u>kurc@bmi.osu.edu</u> P20EB000591 (United States NIBIB)

NC

Journal of the American Medical Informatics Association : JAMIA, (2006 SO May-Jun) Vol. 13, No. 3, pp. 289-301. Electronic Publication: 2006-02-24. Journal code: 9430800. ISSN: 1067-5027.

CY United States

Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.) DT

English LA

Priority Journals FS

EM200606

- Entered STN: 4 May 2006 ΕD Last Updated on STN: 3 Jun 2006 Entered Medline: 2 Jun 2006
- AΒ Diverse data sets have become key building blocks of translational biomedical research. Data types captured and referenced by sophisticated research studies include high throughput genomic and proteomic data, laboratory data, data from imagery, and outcome data. In this paper, the authors present the application of an XML-based data management system to support integration of data from disparate data sources and large data sets. This system facilitates management of XML schemas and on-demand creation and management of XML **databases** that conform to these schemas. They illustrate the use of this system in an application for genotype-phenotype correlation analyses. This application implements a method of phenotype-genotype correlation based on phylogenetic optimization of large data sets of mouse SNPs and phenotypic data. application workflow requires the management and integration of genomic information and phenotypic data from external data repositories and from the results of phenotype-genotype correlation analyses. Our implementation supports the process of carrying out a complex workflow that includes large-scale phylogenetic tree optimizations and application of Maddison's concentrated changes test to large phylogenetic tree data sets. The data management system also allows collaborators to share data in a uniform way and supports complex queries that target data sets.

L3 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

Full Text

AN 2006:549811 CAPLUS

DN 146:24624

- TI Evidence for a Genetic Basis for Altitude-Related Illness
- AU Rupert, Jim L.; Koehle, Michael S.
- CS School of Human Kinetics, University of British Columbia, Vancouver, BC,
- SO High Altitude Medicine & Biology (2006), 7(2), 150-167 CODEN: HAMBB7; ISSN: 1527-0297
- PB Mary Ann Liebert, Inc.
- DT Journal; General Review
- LA English
- AΒ A review. Altitude-related illnesses are a family of interrelated pulmonary, cerebral, hematol., and cardiovascular medical conditions assocd. with the diminished oxygen availability at moderate to high altitudes. The acute forms of these debilitating and potentially fatal conditions, which include acute mountain sickness (AMS), high altitude pulmonary edema (HAPE), and high altitude cerebral edema (HACE), often develop in incompletely acclimatized lowlanders shortly after ascent, whereas, the chronic conditions, such as chronic mountain sickness (CMS) and high altitude pulmonary hypertension (HAPH), usually afflict native or long-term highlanders and may reflect a loss of adaptation. Anecdotal reports of particularly susceptible people or families are frequently cited as evidence that certain individuals have an innate susceptibility (or resistance) to developing these conditions and, in recent decades, there have been a no. of studies designed to characterize the physiol. of individuals predisposed to these conditions, as well as to identify the specific genetic variants that contribute to this predisposition. paper reviews the epidemiol. evidence for a genetic component to the various forms of altitude-related illness, such as innate susceptibility, familial clustering, and patterns of population susceptibility, as well as the mol. evidence for specific genetic risk factors. While the evidence supports some role for genetic background in the etiol. of altitude-related illness, limitations in individual studies and a general lack of corroborating research limit the conclusions that can be drawn about the extent of this contribution and the specific genes or pathways involved. The paper closes with suggestions for future work that could support and expand on previous studies, as well as provide new insights.

RE.CNT 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 ANSWER 14 OF 41 MEDLINE on STN
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Full Text

AN 2007027094 MEDLINE

DN PubMed ID: 16945141

- TI Fine mapping of genes within the IDDM8 region in rheumatoid arthritis.
- AU Hinks Anne; Barton Anne; John Sally; Shephard Neil; Worthington Jane
- CS Arthritis Research Campaign Epidemiology Unit, University of Manchester, Manchester M13 9PT, UK.. <u>Anne.Hinks@manchester.ac.uk</u>
- SO Arthritis research & therapy, (2006) Vol. 8, No. 5, pp. R145. Journal code: 101154438. E-ISSN: 1478-6362.
- CY England: United Kingdom
- DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
- LA English
- FS Priority Journals
- EM 200702
- ED Entered STN: 17 Jan 2007 Last Updated on STN: 10 Feb 2007 Entered Medline: 9 Feb 2007
- The IDDM8 region on chromosome 6q27, first identified as a susceptibility locus for type 1 diabetes, has previously been linked and associated with rheumatoid arthritis (RA). The region contains a number of potential candidate genes, including programmed cell death 2 (PDCD2), the proteosome subunit beta type 1 (PSMB1), delta-like ligand 1 (DLL-1) and TATA box-binding protein (TBP) amongst others. The aim of this study was to fine map the IDDM8 region on chromosome 6q27, focusing on the genes in the region, to identify polymorphisms that may contribute to susceptibility to RA and potentially to other autoimmune diseases. Validated single nucleotide polymorphisms (SNPs; n = 65) were selected from public databases from the 330 kb region of IDDM8. These were genotyped using

Sequenom MassArray genotyping technology in two datasets; the test dataset comprised 180 RA cases and 180 controls. We tested 50 **SNPs** for association with RA and any significant associations were genotyped in a second dataset of 174 RA cases and 192 controls, and the datasets were combined before analysis. Association analysis was performed by chi-square test implemented in Stata software and linkage disequilibrium and **haplotype** analysis was performed using Helix tree version 4.1. There was initial weak evidence of association, with RA, of a number of **SNPs** around the loc154449 putative gene and within the KIAA1838 gene; however, these associations were not significant in the combined dataset. Our study has failed to detect evidence of association with any of the known genes mapping to the IDDM8 locus with RA.

L3 ANSWER 15 OF 41 MEDLINE on STN Full Text 2006190966 MEDLINE ΑN PubMed ID: 16596167 PRKCA and multiple sclerosis: association in two independent populations. ΤI Saarela Janna; Kallio Suvi P; Chen Daniel; Montpetit Alexandre; Jokiaho ΑU Anne; Choi Eva; Asselta Rosanna; Bronnikov Denis; Lincoln Matthew R; Sadovnick A Dessa; Tienari Pentti J; Koivisto Keijo; Palotie Aarno; Ebers George C; Hudson Thomas J; Peltonen Leena Department of Molecular Medicine, National Public Health Institute, CS Helsinki, Finland.. <u>Janna.Saarela@ktl.fi</u> NC NS 43559 (United States NINDS) PLoS genetics, (2006 Mar) Vol. 2, No. 3, pp. e42. Electronic Publication: SO 2006-03-31. Journal code: 101239074. E-ISSN: 1553-7404. United States CY DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., EXTRAMURAL) LA English FS Priority Journals 200608 EMΕD Entered STN: 6 Apr 2006 Last Updated on STN: 4 Aug 2006 Entered Medline: 3 Aug 2006 Multiple sclerosis (MS) is a chronic **disease** of the central nervous AΒ system responsible for a large portion of neurological disabilities in young adults. Similar to what occurs in numerous complex diseases, both

unknown environmental factors and genetic predisposition are required to generate MS. We ascertained a set of 63 Finnish MS families, originating from a high-risk region of the country, to **identify** a susceptibility gene within the previously established 3.4-Mb region on 17q24. Initial single nucleotide polymorphism (SNP)-based association implicated PRKCA (protein kinase C alpha) gene, and this association was replicated in an independent set of 148 Finnish MS families (p = 0.0004; remaining significant after correction for multiple testing). Further, a dense set of 211 SNPs evenly covering the PRKCA gene and the flanking regions was selected from the dbSNP database and analyzed in two large, independent MS cohorts: in 211 Finnish and 554 Canadian MS families. A multipoint SNP analysis indicated linkage to PRKCA and its telomeric flanking region in both populations, and SNP haplotype and genotype combination analyses revealed an allelic variant of PRKCA, which covers the region between introns 3 and 8, to be over-represented in Finnish MS cases (odds ratio = 1.34, 95% confidence interval 1.07-1.68). A second allelic variant, covering the same region of the PRKCA gene, showed somewhat stronger evidence for association in the Canadian families (odds ratio = 1.64, 95% confidence interval 1.39-1.94). Initial functional relevance for disease predisposition was suggested by the expression analysis: The transcript levels of PRKCA showed correlation with the copy number of the Finnish and Canadian "risk" haplotypes in CD4-negative mononuclear cells of five Finnish multiplex families and in lymphoblast cell lines of 11 Centre d'Etude du Polymorphisme Humain (CEPH) individuals of European origin.

L3 ANSWER 16 OF 41 MEDLINE on STN Full Text
AN 2006252703 MEDLINE
DN PubMed ID: 16597333

TI Selection of **SNP** subsets for association studies in candidate genes: comparison of the power of different strategies to detect single **disease** 

susceptibility locus effects.

- AU Cousin Emmanuelle; Deleuze Jean-Francois; Genin Emmanuelle
- CS Sanofi-Aventis, Evry Genetics Centre, 2 rue Gaston Cremieux CP5705, 91057 Evry, France.. emmanuelle.cousin@sanofi-aventis.com
- SO BMC genetics, (2006) Vol. 7, pp. 20. Electronic Publication: 2006-04-05. Journal code: 100966978. E-ISSN: 1471-2156.
- CY England: United Kingdom
- DT (COMPARATIVE STUDY)
  - Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- EM 200605
- ED Entered STN: 9 May 2006 Last Updated on STN: 19 May 2006 Entered Medline: 18 May 2006
- BACKGROUND: The recent advances in genotyping and molecular techniques AΒ have greatly increased the knowledge of the human genome structure. Millions of polymorphisms are reported and freely available in public databases. As a result, there is now a need to identify among all these data, the relevant markers for genetic association studies. Recently, several methods have been published to select subsets of markers, usually Single Nucleotide Polymorphisms (SNPs), that best represent genetic polymorphisms in the studied candidate gene or region. RESULTS: In this paper, we compared four of these selection methods, two based on haplotype information and two based on pairwise linkage disequilibrium (LD). The methods were applied to the genotype data on twenty genes with different patterns of LD and different numbers of SNPs. A measure of the efficiency of the different methods to select SNPs was obtained by comparing, for each gene and under several single disease susceptibility models, the power to detect an association that will be achieved with the selected SNP subsets. CONCLUSION: None of the four selection methods stands out systematically from the others. Methods based on pairwise LD information turn out to be the most interesting methods in a context of association study in candidate gene. In a context where the number of SNPs to be tested in a given region needs to be more limited, as in large-scale studies or wide genome scans, one of the two methods based on haplotype information, would be more suitable.
- L3 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
- Full Text
- AN 2006:1056660 CAPLUS
- DN 146:80112
- TI Fine mapping of genes within the IDDM8 region in rheumatoid arthritis
- AU Hinks, Anne; Barton, Anne; John, Sally; Shephard, Neil; Worthington, Jane
- CS Arthritis Research Campaign Epidemiology Unit, University of Manchester, Manchester, M13 9PT, UK
- SO Arthritis Research & Therapy (2006), 8(5), No pp. given CODEN: ARTRCV; ISSN: 1478-6362
  - URL: <a href="http://arthritis-research.com/content/pdf/ar2037.pdf">http://arthritis-research.com/content/pdf/ar2037.pdf</a>
- PB BioMed Central Ltd.
- DT Journal; (online computer file)
- LA English
- The IDDM8 region on chromosome 6q27, first identified as a susceptibility AB locus for type 1 diabetes, has previously been linked and assocd. with rheumatoid arthritis (RA). The region contains a no. of potential candidate genes, including programmed cell death 2 (PDCD2), the proteosome subunit beta type 1 (PSMB1), delta-like ligand 1 (DLL-1) and TATA box-binding protein (TBP) amongst others. The aim of this study was to fine map the IDDM8 region on chromosome 6q27, focusing on the genes in the region, to identify polymorphisms that may contribute to susceptibility to RA and potentially to other autoimmune diseases. Validated single nucleotide polymorphisms (SNPs; n = 65) were selected from public databases from the 330 kb region of IDDM8. These were genotyped using Sequenom MassArray genotyping technol. in two datasets; the test dataset comprised 180 RA cases and 180 controls. We tested 50 SNPs for assocn. with RA and any significant assocns. were genotyped in a second dataset of 174 RA cases and 192 controls, and the datasets were combined before anal. Assocn. anal. was performed by chi-square test implemented in Stata software and linkage disequil. and haplotype anal. was performed using Helix tree version 4.1. There was initial weak evidence of assocn., with RA, of a no. of SNPs around the loc154449 putative gene and within the KIAA1838 gene; however, these assocns. were not significant in the

combined dataset. Our study has failed to detect evidence of assocn. with any of the known genes mapping to the IDDM8 locus with RA.

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 18 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN L3

- 2006:384116 CAPLUS ΑN
- DΝ 145:225413
- ΤI Selection of SNP subsets for association studies in candidate genes: comparison of the power of different strategies to detect single disease susceptibility locus effects
- Cousin, Emmanuelle; Deleuze, Jean-Francois; Genin, Emmanuelle ΑU
- CS
- Sanofi-Aventis, Evry Genetics Centre, Evry, 91057, Fr. BMC Genetics (2006), 7, No pp. given CODEN: BGMEDS; ISSN: 1471-2156 SO
  - URL: http://www.biomedcentral.com/content/pdf/1471-2156-7-20.pdf
- BioMed Central Ltd. PΒ
- Journal; (online computer file) DT
- LA English
- AΒ The recent advances in genotyping and mol. techniques have greatly increased the knowledge of the human genome structure. Millions of polymorphisms are reported and freely available in public databases. a result, there is now a need to identify among all these data, the relevant markers for genetic assocn. studies. Recently, several methods have been published to select subsets of markers, usually Single Nucleotide Polymorphisms (SNPs), that best represent genetic polymorphisms in the studied candidate gene or region. In this paper, we compared four of these selection methods, two based on haplotype information and two based on pairwise linkage disequil. (LD). The methods were applied to the genotype data on twenty genes with different patterns of LD and different nos. of SNPs. A measure of the efficiency of the different methods to select SNPs was obtained by comparing, for each gene and under several single disease susceptibility models, the power to detect an assocn. that will be achieved with the selected SNP subsets. Conclusions None of the four selection methods stands out systematically from the others. Methods based on pairwise LD information turn out to be the most interesting methods in a context of assocn. study in candidate gene. In a context where the no. of SNPs to be tested in a given region needs to be more limited, as in large scale studies or wide genome scans, one of the two methods based on haplotype information, would be more suitable.
- THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- ANSWER 19 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN L3

Full Text

- 2005:1242662 CAPLUS
- 143:455599 DN
- ΤI Functional proteomics modeling system
- Solomon, Neal ΙN
- PA
- U.S. Pat. Appl. Publ., 68 pp. SO
- CODEN: USXXCO
- DT Patent
- LA English
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI PRAI	US 2005260663 US 2004-572716P	A1 P	20051124 20040519	US 2005-133492	20050519		

AΒ The invention develops models of functional proteomics. Simulation scenarios of protein pathway vectors and protein-protein interactions are modeled from limited information in protein databases. The system focuses on three integrated subsystems, including (1) a system to model protein-protein interactions using an evolvable Global Proteomic Model (GPM) of functional proteomics to ascertain healthy pathway operations, (2) a system to identify haplotypes customized for specific pathol. using dysfunctional protein pathway simulations of the function of combinations of single nucleotide polymorphisms (SNPs) so as to ascertain pathol. mutation sources and (3) a pharmacoproteomic modeling system to develop, test and refine proposed drug solns. based on the

mol. structure and topol. of mutant protein(s) in order to manage individual pathologies. The system focuses on simulating the degenerative genetic **disease** categories of cancer, neurodegenerative **diseases**, immunodegenerative **diseases** and aging. The system reveals approaches to reverse engineer and test personalized medicines based upon dysfunctional proteomic pathol. simulations.

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ANSWER 20 OF 41
                         MEDLINE on STN
L3
Full Text
AN
     2005493741
                     MEDLINE
     PubMed ID: 16166290
DN
     Five loci, SLT1 to SLT5, controlling the susceptibility to spontaneously
ΤI
     occurring lung cancer in mice.
     Wang Daolong; You Ming
Department of Surgery and the Siteman Cancer Center, Washington University
ΑU
CS
     School of Medicine, St. Louis, Missouri 63110, USA.
NC
     CA099147 (United States NCI)
     CA099187 (United States NCI)
     ES012063 (United States NIEHS)
     ES013340 (United States NIEHS)
     Cancer research, (2005 Sep 15) Vol. 65, No. 18, pp. 8158-65. 
Journal code: 2984705R. ISSN: 0008-5472.
SO
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
     (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
     (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
     English
LA
     Priority Journals
FS
EM
     200511
ΕD
     Entered STN: 17 Sep 2005
     Last Updated on STN: 15 Dec 2005
     Entered Medline: 25 Nov 2005
     A series of linkage studies was previously conducted to identify
     quantitative trait loci associated with chemically induced lung tumors.
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However, little is known of genetic susceptibility to spontaneously occurring lung tumorigenesis (SLT) in mice. In this study, we did a whole-genome linkage disequilibrium analysis for susceptibility to SLT in mice using approximately 135,900 single-nucleotide polymorphisms (SNPs) from the Roche and Genomic Institute of the Novartis Research Foundation SNP databases. A common set of 13 mouse strains was used, including 10 resistant strains (129X1/SvJ, AKR/J, C3H/HeJ, C57BL/6J, DBA/2J, NZB/BlnJ, CAST/EiJ, SPRET/EiJ, SM/J, and LP/J) and 3 susceptible strains (A/J, BALB/cJ, and NZW/LaCJ). Fisher exact test was used to assess the association between individual **SNPs** and susceptibility to SLT. Five regions, SLT1 to SLT5, were mapped on chromosomes 6, 7, 8, 19, and X, respectively. SLT1 to SLT5 showed a significant association with SLT under the empirical threshold (P < or = 0.004) derived from permutation tests. SNP versus SNP association tests indicated that these SLT regions were unlikely to be caused by population substructure. Thus, SLT1 to SLT5 seem to be novel loci controlling the susceptibility to spontaneously occurring lung cancer in mice. Our results provide, for the first time, an insight into the genetic control of spontaneously occurring lung tumorigenesis.

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L3 ANSWER 21 OF 41 MEDLINE on STN DUPLICATE 7 Full Text
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AN 2005348501 MEDLINE

DN PubMed ID: 16000574

- TI A haplotype analysis of HER-2 gene polymorphisms: association with breast cancer risk, HER-2 protein expression in the tumor, and disease recurrence in Korea.
- AU Han Wonshik; Kang Daehee; Lee Jong Eun; Park In Ae; Choi Ji-Yeob; Lee Kyung-Mu; Bae Ji Yeon; Kim Sook; Shin Eun-Soon; Lee Jeong Eon; Shin Hyuk-Jae; Kim Seok Won; Kim Sung-Won; Noh Dong-Young
- CS Department of Surgery, Seoul National University College of Medicine, and DNA Link Inc., Seoul, Korea.
- SO Clinical cancer research: an official journal of the American Association for Cancer Research, (2005 Jul 1) Vol. 11, No. 13, pp. 4775-8.

  Journal code: 9502500. ISSN: 1078-0432.

CY United States

DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

```
English
LA
     Priority Journals
FS
EM
     200512
ED
     Entered STN: 8 Jul 2005
     Last Updated on STN: 15 Dec 2005
     Entered Medline: 7 Dec 2005
     PURPOSE: A single-nucleotide polymorphism (SNP) in codon 655 of HER-2
AΒ
     has been extensively studied with inconclusive results. The purpose of
     this study was to investigate the association between common variants of
     HER-2 and breast cancer risk, HER-2 expression, and survival using a
     haplotype-based stepwise approach. EXPERIMENTAL DESIGN: Twenty-nine
     SNPs listed in the National Center for Biotechnology Information
     database were screened to identify novel polymorphisms of HER-2 gene in 90 healthy Korean women. Six of 29 SNPs were polymorphic and had
     greater than 10% of minor allele frequencies. Using these six SNPs,
     linkage disequilibrium and haplotype patterns were characterized. We
     tested association between the haplotypes and breast cancer in a large
     case-control study (n=1,039 \text{ cases and } 995 \text{ controls}). Six-hundred two
     breast cancer patients with follow-up at least 24 months were analyzed for
     outcome in relation to haplotype. Expression of HER-2 protein was
     determined by immunohistochemistry in 1,094 cases of invasive breast
     cancer. RESULTS: All six SNPs showed a strong linkage disequilibrium
     pattern and were considered to belong to one haplotype block. Two
     haplotype-tagging SNPs (I655V and P1170A) for three common
     haplotypes (>5%) were genotyped in cases and controls. The haplotypes
     and individual SNPs were not associated with breast cancer risk.
     patients with at least one copy of haplotype I (the most common
     haplotype), HER-2 expression was 1.5 times higher (P = 0.009) and the
     prognosis was worse (P = 0.032) compared with patients without having that
     haplotype. CONCLUSIONS: Our results suggest that the currently
     identified genetic polymorphisms of HER-2 are not associated with an
     increased risk of breast cancer in Korean women, whereas one haplotype
     does affect protein expression of the tumor and disease outcome.
     ANSWER 22 OF 41
                          MEDLINE on STN
T.3
Full Text
     2005574911
                    MEDLINE
ΑN
     PubMed ID: 16255080
DN
TΙ
     A haplotype map of the human genome.
ΑU
     Anonymous
     International HapMap Consortium.
CS
     R01 HG001720-06 (United States NHGRI)
ИС
     Nature, (2005 Oct 27) Vol. 437, No. 7063, pp. 1299-320. 
Journal code: 0410462. E-ISSN: 1476-4687.
SO
СҮ
     England: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
DT
     (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
     (RESEARCH SUPPORT, NON-U.S. GOV'T)
     (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
     English
LA
     Priority Journals
FS
EM
     200511
     Entered STN: 29 Oct 2005
ED
     Last Updated on STN: 16 Dec 2005
     Entered Medline: 23 Nov 2005
     Inherited genetic variation has a critical but as yet largely
AΒ
     uncharacterized role in human disease. Here we report a public
     database of common variation in the human genome: more than one million
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Inherited genetic variation has a critical but as yet largely uncharacterized role in human disease. Here we report a public database of common variation in the human genome: more than one million single nucleotide polymorphisms (SNPs) for which accurate and complete genotypes have been obtained in 269 DNA samples from four populations, including ten 500-kilobase regions in which essentially all information about common DNA variation has been extracted. These data document the generality of recombination hotspots, a block-like structure of linkage disequilibrium and low haplotype diversity, leading to substantial correlations of SNPs with many of their neighbours. We show how the HapMap resource can guide the design and analysis of genetic association studies, shed light on structural variation and recombination, and identify loci that may have been subject to natural selection during human evolution.

L3 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN Full Text

AN 2005:1148839 CAPLUS

DN 144:65084

ΑU

TI A haplotype map of the human genome

Gibbs, Richard A.; Belmont, John W.; Boudreau, Andrw; Leal, Suzanne M.; Hardenbol, Paul; Paternak, Shiran; Wheeler, David A.; Willis, Thomas D.; Yu, Fuli; Yang, Huanming; Zeng,, Changqing; Gao, Yang; Hu, Haoran; Hu, Weitao; Li, Chaohua; Lin, Wei; Liu, Siqi; Pan, Hao; Tang, Xiaoli; Wang, Jian; Wang, Wei; Yu, Jun; Zhang, Bo; Zhang, Qingrun; Zhao, Hongbin; Zhao, Hui; Zhou, Jun; Gabriel, Stacey B.; Barry, Rachel; Blumenstiel, Brendan; Camargo, Amy; Defelice, Matthew; Faggart, Maura; Govette, Mary; Gupta, Supriva; Moore, Jamie; Nguyen, Huy; Onofrio, Robert C.; Parkin, Melissa; Roy, Jessica; Stahl, Erich; Winchester, Ellen; Ziaugra, Liuda; Atlshuler, David; Shen, Yan; Yao, Zhijian; Huang, Wei; Chu, Xun; He, Yungang; Jin, Li; Liu, Yangfan; Shen, Yayun; Sun, Weiwei; Wang, Haifeng; Wang, Yi; Wang, Ying; Wang, Ying; Xiong, Xiaoyan; Xu, Liang; Waye, Mary M. Y.; Tsui, Stephen K.; Xue, Hong; Wong, J. Tze-Fei; Galver, Launa M.; Fan, Jian-Bing; Murray, Sarah S.; Oliphant, Arnold R.; Chee, Mark S.; Montpetit, Alexandre; Chagnon, Fanny; Ferretti, Vincent; Leboeuf, Martin; Olivier, Jean-Francois; Phillips, Michael; Roumy, Stephanie; Sallee, Clementine; Verner, Andrei; Hudson, Thomas J.; Frazer, Kelly A.; Ballinger, Dennis G.; Cox, David R.; Hinds, David A.; Stuve, Laura L.; Kwok, Pui-Yan; Cai, Dongmei; Koboldt, Daniel C.; Miller, Raymond D.; Pawlikowska, Ludmila; Taillon-Miller, Patricia; Xiao, Ming; Tsui, Lap-Chee; Mak, William; Sham, Pak C.; Song, You Qiang; Tam, Paul K. H.; Nakamura, Yuske; Kawaguchi, Takahisa; Kitamoto, Takuya; Morizon, Takashi; Nagashima, Atsushi; Ohnishi, Yozo; Sekine, Akihiro; Tanaka, Toshihiro; Tsunoda, Tatsuhiko; Deloukas, Panos; Bird, Christine P.; Delgado, Marcos; Dermitzakis, Emmanouil T.; Gwilliam, Rhian; Hunt, Sarah; Morrison, Jonathon; Powell, Don; Stranger, Barbara E.; Whittaker, Pamela; Bentley, David R.; Daly, Mark J.; de Bakker, Paul I. W.; Barrett, Jeff; Fry, Ben; Maller, Julian; McCarroll, Steve; Patterson, Nick; Pe'er, Itsik; Purcell, Shaun; Richter, Daniel; Sabeti, Pardis; Saxena, Richa; Schaffner, Stephen F.; Varilly, Patrick; Altshuler, David; Stein, Lincoln D.; Krishnan, Lalitha; Smith, Albert Vernon; Thorisson, Gudmundur A.; Chakravarti, Aravinda; Chen, Peter E.; Cutler, David J.; Kashuk, Carl S.; Lin, Shin; Abecasis, Goncalo R.; Guan, Weihua; Munro, Heather M.; Qin, Zhaohui Steve; Thomas, Daryl J.; McVean, Gilean; Bottolo, Leonardo; Eyheramendy, Susana; Freeman, Colin; Marchini, Jonathan; Myers, Simon; Spencer, Chris; Spehens, Matthew; Donnelly, Peter; Cardon, Lon R.; Clarke, Geraldine; Evans, David M.; Morris, Andrew P.; Weir, Bruce S.; Tsunoda, Tatshjiko; Mullikin, James C.; Sherry, Stephen T.; Feolo, Michael; Zahng, Houcan; Zeng, Changqing; Zhao, Hui; Matsuda, Ichiro; Fukushima, Yoshimitsu; Macer, Darryl R.; Suda, Eiko; Rotimi, Charles N.; Adebamowo, Clement A.; Ajayi, Ike; Aniagwu, Toyin; Marshall, Patrcia A.; Nkwodimmah, Chibuzor; Royal, Charmaine D.; Leppert, Mark F.; Dixon, Missy; Peiffer, Andy; Qui, Renzong; Kent, Alastair; Kato, Kazuto; Niikawa, Norio; Adewole, Isaac F.; Knoppers, Bartha M.; Foster, Morris W.; Clayton, Ellen Wright; Watkin, Jessica; Muzny, Donna; Nazareth, Lynne; Sodergren, Erica; Weinstock, George M.; Wheeler, David M.; Yakub, Imtiaz; Gabriel, Stacey B.; Onofrio, Robert C.; Richter, Daniel J.; Ziaugra, Liuda; Birren, Bruce W.; Wilson, Richard K.; Fulton, Lucinda L.; Rogers, Jane; Burton, John; Carter, Nigel P.; Clee, Christopher M.; Griffiths, Mark; Jones, Matthew C.; McLay, Kirsten; Plumb, Robert W.; Ross, Mark T.; Sims, Sarah K.; Willey, David L.; Chen, Zhu; Han, Hua; Kang, Le; Godbout, Martin; Wallenburg, John C.; Archeveque, Paul L.; Bellemare, Guy; Saeki, Koji; Wang, Hongguang; An, Daochang; Fu, Hongbo; Li, Qing; Wang, Zhen; Wang, Renwu; Holden, Arthur L.; Brooks, Lisa D.; McEwen, Jean E.; Bird, Christianne R.; Guyer, Mark S.; Nailer, Patrick J.; Wang, Vivian Ota; Peterson, Jane L.; Shi, Michael; Spiegel, Jack; Sung, Lawrence M.; Witonsky, Jonathan; Zacharia, Lynn F.; Collins, Francis S.; Kennedy, Karen; Jamieson, Ruth; Stewart, John

CS International HapMap Consortium, Human Genome Sequecing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX, 77030, USA

SO Nature (London, United Kingdom) (2005), 437(7063), 1299-1320 CODEN: NATUAS; ISSN: 0028-0836

PB Nature Publishing Group

DT Journal

LA English

AB Inherited genetic variation has a crit. but as yet largely uncharacterized role in human **disease**. Here we report a public **database** of common variation in the human genome: more than one million single nucleotide polymorphisms (**SNPs**) for which accurate and complete genotypes have been

obtained in 269 DNA samples from four populations, including ten 500-kilobase regions in which essentially all information about common DNA variation has been extd. These data document the generality of recombination hotspots, a block-like structure of linkage disequil. and low haplotype diversity, leading to substantial correlations of SNPs with many of their neighbors. We show how the HapMap resource can guide the design and anal. of genetic assocn. studies, shed light on structural variation and recombination, and identify loci that may have been subject to natural selection during human evolution.

RE.CNT 103 THERE ARE 103 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

Full Text

AN 2005:1284119 CAPLUS

DN 144:32710

TI Genome sequence, comparative analysis and **haplotype** structure of the domestic dog

Lindblad-Toh, Kerstin; Wade, Claire M.; Mikkelsen, Tarjei S.; Karlsson, ΑU Elinor K.; Jaffe, David B.; Kamal, Michael; Clamp, Michele; Chang, Jean L.; Kulbokas, Edward J.; Zody, Michael C.; Mauceli, Evan; Xie, Xiaohui; Breen, Matthew; Wayne, Robert K.; Ostrander, Elaine A.; Ponting, Chris P.; Galibert, Francis; Smith, Douglas R.; de Jong, Pieter J.; Kirkness, Ewen; Alvarez, Pablo; Biagi, Tara; Brockman, William; Butler, Jonathan; Chin, Chee-Wye; Cook, April; Cuff, James; Daly, Mark J.; DeCaprio, David; Gnerre, Sante; Grabherr, Manfred; Kellis, Manolis; Kleber, Michael; Bardeleben, Carolyne; Goodstadt, Leo; Heger, Andreas; Hitte, Christophe; Kim, Lisa; Koepfli, Klaus-Peter; Parker, Heidi G.; Pollinger, John P.; Searle, Stephen M. J.; Sutter, Nathan B.; Thomas, Rachael; Webber, Caleb; Baldwin, Jennifer; Abebe, Adal; Abouelleil, Amr; Aftuck, Lynne; Ait-zahra, Mostafa; Aldredge, Tyler; Allen, Nicole; An, Peter; Anderson, Scott; Antoine, Claudel; Arachchi, Harindra; Aslam, Ali; Ayotte, Laura; Bachantsang, Pasang; Barry, Andrew; Bayul, Tashi; Benamara, Mostafa; Berlin, Aaron; Bessette, Daniel; Blitshteyn, Berta; Bloom, Toby; Blye, Jason; Boguslavskiy, Leonid; Bonnet, Claude; Boukhgalter, Boris; Brown, Adam; Cahill, Patrick; Calixte, Nadia; Camarata, Jody; Cheshatsang, Yama; Chu, Jeffrey; Citroen, Mieke; Collymore, Alville; Cooke, Patrick; Dawoe, Tenzin; Daza, Riza; Decktor, Karin; DeGray, Stuart; Dhargay, Norbu; Dooley, Kimberly; Dooley, Kathleen; Dorje, Passang; Dorjee, Kunsang; Dorris, Lester; Duffey, Noah; Dupes, Alan; Egbiremolen, Osebhajajeme; Elong, Richard; Falk, Jill; Farina, Abderrahim; Faro, Susan; Ferguson, Diallo; Ferreira, Patricia; Fisher, Sheila; FitzGerald, Mike; Foley, Karen; Foley, Chelsea; Franke, Alicia; Friedrich, Dennis; Gage, Diane; Garber, Manuel; Gearin, Gary; Giannoukos, Georgia; Goode, Tina; Goyette, Audra; Graham, Joseph; Grandbois, Edward; Gyaltsen, Kunsang; Hafez, Nabil; Hagopian, Daniel; Hagos, Birhane; Hall, Jennifer; Healy, Claire; Hegarty, Ryan; Honan, Tracey; Horn, Andrea; Houde, Nathan; Hughes, Leanne; Hunnicutt, Leigh; Husby, M.; Jester, Benjamin; Jones, Charlien; Kamat, Asha; Kanga, Ben; Kells, Cristyn; Khazanovich, Dmitry; Kieu, Alix Chinh; Kisner, Peter; Kumar, Mayank; Lance, Krista; Landers, Thomas; Lara, Marcia; Lee, William; Leger, Jean-Pierre; Lennon, Niall; Leuper, Lisa; LeVine, Sarah; Liu, Jinlei; Liu, Xiaohong; Lokyitsang, Yeshi; Lokyitsang, Tashi; Lui, Annie; Macdonald, Jan; Major, John; Marabella, Richard; Maru, Kebede; Matthews, Charles; McDonough, Susan; Mehta, Teena; Meldrim, James; Melnikov, Alexandre; Meneus, Louis; Mihalev, Atanas; Mihova, Tanya; Miller, Karen; Mittelman, Rachel; Mlenga, Valentine; Mulrain, Leonidas; Munson, Glen; Navidi, Adam; Naylor, Jerome; Nguyen, Tuyen; Nguyen, Nga; Nguyen, Cindy; Nguyen, Thu; Nicol, Robert; Norbu, Nyima; Norbu, Choe; Novod, Nathaniel; Nyima, Tenchoe; Olandt, Peter; O'Neill, Barry; O'Neill, Keith; Osman, Sahal; Oyono, Lucien; Patti, Christopher; Perrin, Danielle; Phunkhang, Pema; Pierre, Fritz; Priest, Margaret; Rachupka, Anthony; Raghuraman, Sujaa; Rameau, Rayale; Ray, Verneda; Raymond, Christina; Rege, Filip; Rise, Cecil; Rogers, Julie; Rogov, Peter; Sahalie, Julie; Settipalli, Sampath; Sharpe, Theodore; Shea, Terrance; Sheehan, Mechele; Sherpa, Ngawang; Shi, Jianying; Shih, Diana; Sloan, Jessie; Smith, Cherylyn; Sparrow, Todd; Stalker, John; Stange-Thomann, Nicole; Stavropoulos, Sharon; Stone, Catherine; Stone, Sabrina; Sykes, Sean; Tchuinga, Pierre; Tenzing, Pema; Tesfaye, Senait; Thoulutsang, Dawa; Thoulutsang, Yama; Topham, Kerri; Topping, Ira; Tsamla, Tsamla; Vassiliev, Helen; Venkataraman, Vijay; Vo, Andy; Wangchuk, Tsering; Wangdi, Tsering; Weiand, Michael; Wilkinson, Jane; Wilson, Adam; Yadav, Shailendra; Yang, Shuli; Yang, Xiaoping; Young, Geneva; Yu, Qing; Zainoun, Joanne; Zembek,

Lisa; Zimmer, Andrew; Lander, Eric S.

- CS Broad Institute of Harvard and MIT, Cambridge, MA, 02141, USA
- SO Nature (London, United Kingdom) (2005), 438(7069), 803-819 CODEN: NATUAS; ISSN: 0028-0836
- PB Nature Publishing Group
- DT Journal
- LA English
- A high-quality draft genome sequence of the domestic dog (Canis AΒ familiaris) is reported, together with a dense map of single nucleotide polymorphisms (SNPs) across breeds. The dog is of particular interest because it provides important evolutionary information and because existing breeds show great phenotypic diversity for morphol., physiol., and behavioral traits. Sequence comparison with the primate and rodent lineages is used to shed light on the structure and evolution of genomes and genes. Notably, the majority of the most highly conserved non-coding sequences in mammalian genomes are clustered near a small subset of genes with important roles in development. Anal. of SNPs reveals long-range haplotypes across the entire dog genome, and defines the nature of genetic diversity within and across breeds. The current SNP map now makes it possible for genome-wide assocn. studies to **identify** genes responsible for **diseases** and traits, with important consequences for human and companion animal health. The draft genome sequence is deposited in the NCBI genome projects database under accession codes AAEX01000000 (CanFam1.0) and AAEX02000000 (CanFam2.0), and SNPs are deposited in the dbSNP database.
- RE.CNT 119 THERE ARE 119 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L3 ANSWER 25 OF 41 MEDLINE on STN DUPLICATE 8
- Full Text
- AN 2005540973 MEDLINE
- DN PubMed ID: 15993562
- TI Allelic variation in gene expression identified through computational analysis of the dbEST **database**.
- AU Lin Wei; Yang Howard H; Lee Maxwell P
- CS Laboratory of Population Genetics, National Cancer Institute, Bethesda, MD 20892, USA.
- SO Genomics, (2005 Nov) Vol. 86, No. 5, pp. 518-27. Electronic Publication: 2005-07-01.
  - Journal code: 8800135. ISSN: 0888-7543.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- EM 200512
- ED Entered STN: 12 Oct 2005

Last Updated on STN: 30 Dec 2005 Entered Medline: 29 Dec 2005

Differential expression between the two alleles of an individual and AΒ between people with different genotypes has been commonly observed. Quantitative differences in gene expression between people may provide the genetic basis for the phenotypic difference between individuals and may be the primary cause of complex **diseases**. In this paper, we developed a computational method to **identify** genes that displayed allelic variation in gene expression in human EST libraries. To model allele-specific gene expression, we first identified EST libraries in which both A and B alleles were expressed and then identified allelic variation in gene expression based on the EST counts for each allele using a binomial test. Among 1107 SNPs that had a sufficient number of ESTs for the analysis, 524 (47%) displayed allelic variation in at least one cDNA library. We verified experimentally the allelic variation in gene expression for 6 of these SNPs. The frequency of allelic variation observed in EST libraries was similar to the previous studies using the SNP chip and primer extension method. We found that genes that displayed allelic variation were distributed throughout the human genome and were enriched in certain chromosome regions. The  ${\bf SNPs}$  and genes identified in this study will provide a rich source for evaluating the effects of those SNPs and associated haplotypes in human health and diseases.

L3 ANSWER 26 OF 41 MEDLINE on STN Full Text

AN 2006007242 MEDLINE

- DN PubMed ID: 16336665
- TI SNP-VISTA: an interactive SNP visualization tool.
- AU Shah Nameeta; Teplitsky Michael V; Minovitsky Simon; Pennacchio Len A; Hugenholtz Philip; Hamann Bernd; Dubchak Inna L
- CS Institute for Data Analysis and Visualization, (IDAV), Department of Computer Science, University of California, Davis, One ShieldsAve., Davis, CA 95616, USA.. <a href="mailto:nyshah@ucdavis.edu">nyshah@ucdavis.edu</a>
- SO BMC bioinformatics, (2005) Vol. 6, pp. 292. Electronic Publication: 2005-12-08.

  Journal code: 100965194. E-ISSN: 1471-2105.
- CY England: United Kingdom
- Journal; Article; (JOURNAL ARTICLE)

  (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)

  (RESEARCH SUPPORT, NON-U.S. GOV'T)

  (RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
- LA English
- FS Priority Journals
- EM 200601
- ED Entered STN: 6 Jan 2006 Last Updated on STN: 27 Jan 2006 Entered Medline: 26 Jan 2006
- BACKGROUND: Recent advances in sequencing technologies promise to provide a better understanding of the genetics of human **disease** as well as the AΒ evolution of microbial populations. Single Nucleotide Polymorphisms (SNPs) are established genetic markers that aid in the identification of loci affecting quantitative traits and/or disease in a wide variety of eukaryotic species. With today's technological capabilities, it has become possible to re-sequence a large set of appropriate candidate genes in individuals with a given disease in an attempt to identify causative mutations. In addition, SNPs have been used extensively in efforts to study the evolution of microbial populations, and the recent application of random shotgun sequencing to environmental samples enables more extensive SNP analysis of co-occurring and co-evolving microbial populations. The program is available at <a href="http://genome.lbl.gov/vista/snpv">http://genome.lbl.gov/vista/snpv</a> istal. RESULTS: We have developed and present two modifications of an interactive visualization tool, SNP-VISTA, to aid in the analyses of the following types of data: A. Large-scale re-sequence data of disease-related genes for discovery of associated and/or causative alleles (GeneSNP-VISTA). B. Massive amounts of ecogenomics data for studying homologous recombination in microbial populations (EcoSNP-VISTA). The main features and capabilities of SNP-VISTA are: 1) mapping of SNPs to gene structure; 2) classification of SNPs, based on their location in the gene, frequency of occurrence in samples and allele composition; 3) clustering, based on user-defined subsets of SNPs, highlighting haplotypes as well as recombinant sequences; 4) integration of protein evolutionary conservation visualization; and 5) display of automatically calculated recombination points that are user-editable. CONCLUSION: The main strength of SNP-VISTA is its graphical interface and use of visual representations, which support interactive exploration and hence better understanding of large-scale **SNP** data by the user.
- L3 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
- Full Text
- AN 2005:1111051 CAPLUS
- DN 144:247821
- TI The patterns of natural variation in human genes
- AU Crawford, Dana C.; Akey, Dayna T.; Nickerson, Deborah A.
- CS Department of Genome Sciences, University of Washington, Seattle, WA, 98195, USA
- SO Annual Review of Genomics and Human Genetics (2005), 6, 287-312 CODEN: ARGHC4; ISSN: 1527-8204
- PB Annual Reviews Inc.
- DT Journal; General Review
- LA English
- AB A review. Currently, more than 10 million DNA sequence variations have been uncovered in the human genome. The most detailed variation discovery efforts have focused on candidate genes involved in cardiovascular disease or in susceptibilities assocd. with exposure to environmental agents. Here we provide an overview of natural genetic variation from the literature and in 510 human candidate genes resequenced for variation discovery. The av. human gene contains 126 biallelic polymorphisms, 46 of which are common (≥5% minor allele frequency) and 5 of which are

found in coding regions. Using this complete picture of genetic diversity, we explore conservation, signatures of selection, and historical recombination to mine information useful for candidate gene assocn. studies. In general, we find that the patterns of human gene variation suggest that no one approach will be appropriate for genetic assocn. studies across all genes. Therefore, many different approaches may be required to **identify** the elusive genotypes assocd. with common human phenotypes.

RE.CNT 119 THERE ARE 119 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 28 OF 41
L3
                           MEDLINE on STN
<u>Full</u>
     2005220359
ΑN
                     MEDLINE
     PubMed ID: 15703761
DN
     Polymorphisms in the interleukin 17F gene (IL17F) and asthma.
ΤI
ΑU
     Ramsey C D; Lazarus R; Camargo C A Jr; Weiss S T; Celedon J C
CS
     Channing Laboratory, Department of Medicine, Brigham and Women's Hospital,
     Harvard Medical School, Boston, MA 02115, USA.
     5 T32 HL07427 (United States NHLBI)
NC
     K01 HL04370-01A1 (United States NHLBI)
     U01 HL66795 (United States NHLBI)
     Genes and immunity, (2005 May) Vol. 6, No. 3, pp. 236-41.
SO
     Journal code: 100953417. ISSN: 1466-4879.
CY
     England: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
DT
     (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
     English
LA
     Priority Journals
FS
     200507
EM
ED
     Entered STN: 29 Apr 2005
     Last Updated on STN: 29 Jul 2005
     Entered Medline: 28 Jul 2005
     Interleukin17F (IL17F) is a regulatory cytokine for T-cell-mediated immune responses. The gene coding for IL17F (IL17F) is located on chromosome 6p, a genomic region linked to asthma and asthma-related phenotypes in
AΒ
     multiple genome scans. IL17F is expressed in lung tissue, in
     bronchoalveolar lavage fluid from asthmatic subjects, and in activated
     CD4+ cells. We were thus interested in testing for association between
     single-nucleotide polymorphisms (SNPs) and haplotypes in IL17F and
     asthma. To characterize polymorphisms in IL17F, we sequenced this gene in
     a group of African Americans and a group of European Americans. A total
     of 50 SNPs (30 not previously reported in a public database (dbSNP
     build 118)) and two insertions/deletions were detected in IL17F; five of
     these polymorphisms were genotyped in participants of the Nurses' Health
     Study. We then tested for association between SNPs and haplotypes in
     IL17F and physician-diagnosed asthma in subjects with (cases) and without
     (control subjects) physician-diagnosed asthma. None of the SNPs or
     haplotypes tested in IL17F were associated with asthma. The
     polymorphisms identified in this study may be used in future studies of
     association between IL17F and phenotypes related to immune responses.
     ANSWER 29 OF 41
                           MEDLINE on STN
                                                              DUPLICATE 9
AN
     2005195631
                    MEDLINE
     PubMed ID: 15780967
DN
TΙ
     Human genome-wide screen of haplotype-like blocks of reduced diversity.
     Costas Javier; Salas Antonio; Phillips Christopher; Carracedo Angel
ΑU
CS
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Centro Nacional de Genotipado, Fundacion Publica Galega de Medicina Xenomica, Hospital Clinico Universitario, Universidade de Santiago de Compostela, E15706, Santiago de Compostela, Spain.. bfcostas@usc.es Gene, (2005 Apr 11) Vol. 349, pp. 219-25. Journal code: 7706761. ISSN: 0378-1119. SO Netherlands CY DT(COMPARATIVE STUDY) Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) LA English FS Priority Journals EM200505

- ED Entered STN: 15 Apr 2005 Last Updated on STN: 28 May 2005 Entered Medline: 27 May 2005
- AB An important proportion of the human genome is organized in regions of high linkage disequilibrium (LD) and low haplotype diversity, referred to as haplotype blocks. Here, we perform a genome-wide screen of haplotype-like blocks presenting just two main haplotypes at a frequency higher than 1%, based on single-nucleotide polymorphism (SNP) frequencies from two populations: African-Americans and Caucasians, using data from the Celera SNP database. These haplotype-like blocks of reduced diversity are more abundant and of longer size in Caucasians, in agreement with population history. Several of the discovered blocks are good candidates for targets of natural selection, such as those blocks containing a cluster of bitter taste receptors or the apolipoprotein L1. In addition, several genes putatively involved in susceptibility to common diseases are included in these haplotype-like blocks of reduced diversity. This fact may present important implications in association studies, leading to a reduction of genotyping efforts.
- L3 ANSWER 30 OF 41 MEDLINE on STN DUPLICATE 10

Full Text

- 2005266878 ΑN MEDLINE
- PubMed ID: 15809674 DN
- Systematic investigation of genetic variability in 111 human ΤI genes-implications for studying variable drug response.
- Freudenberg-Hua Y; Freudenberg J; Winantea J; Kluck N; Cichon S; Bruss M; ΑU Propping P; Nothen M M
- CS Institute of Human Genetics, University of Bonn, Bonn, Germany.
- SO The pharmacogenomics journal, (2005) Vol. 5, No. 3, pp. 183-92. Journal code: 101083949. ISSN: 1470-269X.
- CY United States
- Journal; Article; (JOURNAL ARTICLE) DT (RESEARCH SUPPORT, NON-U.S. GOV'T)
- LA English
- Priority Journals FS
- EM200508
- Entered STN: 24 May 2005 ED Last Updated on STN: 15 Aug 2005 Entered Medline: 12 Aug 2005
- In order to identify single-nucleotide polymorphisms (SNPs) and AΒ analyze their characteristics in a set of 111 genes, we resequenced exons and flanking regions in an average of 170 chromosomes from individuals of European origin. Genetic variability was decreased in noncoding regions highly conserved between human and rodents, indicating functional relevance of these regions. Furthermore, diversity of coding nonsynonymous SNPs was found lower in regions encoding a known protein sequence motif. SNPs predicted to be of functional significance were more common amongst rare variants. Despite the significant recent growth of SNP numbers in public SNP databases, only a small fraction of these rare variants is represented. This may be relevant in the investigation of the genetic causes of severe side effects, for which rare variants are plausible candidates. Estimation of htSNPs reduces the genotyping effort required in capturing common **haplotypes**, for certain genes, however, this accounts for only a small fraction of **haplotype** diversity.
- L3 ANSWER 31 OF 41 MEDLINE on STN
- Full Text
- 2005431710 MEDLINE
- PubMed ID: 16029503 DN
- Common variation in EMSY and risk of breast and ovarian cancer: a ΤI case-control study using HapMap tagging SNPs.
- ΑU Benusiglio Patrick R; Lesueur Fabienne; Luccarini Craig; McIntosh Joan; Luben Robert N; Smith Paula; Dunning Alison; Easton Douglas F; Ponder Bruce A J; Pharoah Paul D
- Strangeways Research Laboratory, Department of Oncology, University of CS
- Cambridge, Worts Causeway, Cambridge CB1 8RN, UK.. <u>pbenusiglio@yahoo.com</u> BMC cancer, (2005) Vol. 5, pp. 81. Electronic Publication: 2005-07-19. SO Journal code: 100967800. E-ISSN: 1471-2407.
- CY England: United Kingdom
- DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

- LA English
- FS Priority Journals
- EM 200602
- ED Entered STN: 16 Aug 2005
  Last Updated on STN: 28 Feb 2006
  Entered Medline: 27 Feb 2006
- Entered Medline: 27 Feb 2006
  BACKGROUND: EMSY could be involved in low-level susceptibility to breast AΒ and ovarian cancer. Gene amplification is seen in a proportion of breast and ovarian tumours and correlates with poor prognosis in breast cancer patients. Furthermore, the EMSY protein silences a transcription activation domain in BRCA2 exon 3. METHODS: We used a genetic association study design to determine if common genetic variation (frequency > or =5%) in EMSY was associated with breast or ovarian cancer risk in the British population. Haplotype tagging single-nucleotide polymorphisms (htSNPs) were selected from the HapMap database and genotyped using Tagman in two large study sets of white British women (n [breast set] =  $23\overline{4}3$  cases and  $22\overline{8}4$  controls, n [ovarian set] = 864 cases and 864controls). HapMap data might be insufficient to tag genetic variation in EMSY comprehensively. We therefore screened the gene promoter and coding sequences with denaturing high performance liquid chromatography in order to identify additional SNPs that are most likely to be functional. RESULTS: HapMap data on 22 SNPs show that 4 htSNPs tag 4 common **haplotypes**: rs2282611 (5'up t > g), rs4245443 (IVS7 g > a), rs2513511 (IVS16 a > g), rs2155220 (3'down c > t). We observed no association between any of the genotypes or associated haplotypes and breast or ovarian cancer risk. Seventeen out of the 18 remaining HapMap polymorphisms (94%) were well tagged by the 4 selected htSNPs (r2s > 0.8). Genotype frequencies for two further  ${\tt SNPs}$  identified by screening and located near exon-intron boundaries, rs2508740 (IVS9 a > g) and rs11600501 (IVS10 c > t), were also similar in cases and controls. In order to simulate unidentified SNPs, we performed the leave-one-out cross-validation procedure on the HapMap data; over 95% of the common genetic variation was well represented by tagging polymorphisms. We are therefore likely to have tagged any common, functional variants present in our population. CONCLUSION: We found no association between common genetic variation in EMSY and risk of breast or ovarian cancer in two large study sets of white British women.
- L3 ANSWER 32 OF 41 MEDLINE on STN

DUPLICATE 11

Full Text

- AN 2004637526 MEDLINE
- DN PubMed ID: 15580557
- TI Variations in human HM74 (GPR109B) and HM74A (GPR109A) niacin receptors.
- AU Zellner Christian; Pullinger Clive R; Aouizerat Bradley E; Frost Philip H; Kwok Pui-Yan; Malloy Mary J; Kane John P
- CS Cardiovascular Research Institute, University of California, San Francisco 94143-0130, USA.. <u>zellner@medicine.ucsf.edu</u>
- SO Human mutation, (2005 Jan) Vol. 25, No. 1, pp. 18-21. Journal code: 9215429. E-ISSN: 1098-1004.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
- LA English
- FS Priority Journals
- EM 200602
- ED Entered STN: 23 Dec 2004
  Last Updated on STN: 14 Dec 2005
  Entered Medline: 27 Feb 2006
- HM74 (GPR109B) and the highly homologous gene, HM74A (GPR109A) code for Gi-G protein-coupled orphan receptors that recently have been discovered to be involved in the metabolic effects of niacin. The B vitamin niacin is an important agent used in the treatment of dyslipidemias, but its use is limited by side effects. The novel role of the adjacent HM74 and HM74A genes in the metabolism of niacin may provide new targets for drug development. Human genetic variations in HM74 and HM74A have been reported but have not been studied in detail. These variations may play a role in the response to agents targeting receptors coded by these genes. Here we show that many of the nonsynonymous SNPs listed in public databases for HM74 and HM74A are artifacts resulting from extensive homology between these two genes. This may be representative of a neglected phenomenon in reporting sequences of highly homologous genes. We provide primer sequences that permit selective amplification of the

complete coding regions of HM74 and HM74A. Using these primers, we show that subsequent sequencing of HM74 and HM74A reveals a novel and unique variation in the HM74A gene. **Haplotype** analysis suggests four **SNPs** can define the five major **haplotypes** that lie within a single **haplotype** block encompassing these two genes.

ANSWER 33 OF 41 MEDLINE on STN Full Text AN 2005197555 MEDLINE PubMed ID: 15799788 TΙ Polymorphism screening and haplotype analysis of the tryptophan hydroxylase gene (TPHI) and association with bipolar affective disorder in Taiwan. ΑU Lai Te-Jen; Wu Chia-Yen; Tsai Hsu-Wen; Lin Yi-Mei J; Sun H Sunny Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan, CS Republic of China. tejenlai@hotmail.com. <tejenlai@hotmail.com> BMC medical genetics, (2005 Mar 31) Vol. 6, pp. 14. Electronic SO Publication: 2005-03-31. Journal code: 100968552. E-ISSN: 1471-2350. CY England: United Kingdom DT Journal; Article; (JOURNAL ARTICLE) LA English FS Priority Journals EM 200505 ED Entered STN: 17 Apr 2005 Last Updated on STN: 3 May 2005

Entered Medline: 2 May 2005 AΒ BACKGROUND: Disturbances in serotonin neurotransmission are implicated in the etiology of many psychiatric disorders, including bipolar affective disorder (BPD). The tryptophan hydroxylase gene (TPH), which codes for the enzyme catalyzing the rate-limiting step in serotonin biosynthetic pathway, is one of the leading candidate genes for psychiatric and behavioral disorders. In a preliminary study, we found that TPH1 intron7 A218C polymorphism was associated with BPD. This study was designed to investigate sequence variants of the TPH1 gene in Taiwanese and to test whether the TPH1 gene is a susceptibility factor for the BPD. METHODS: Using a systematic approach, we have searched the exons and promoter region of the TPH1 gene for sequence variants in Taiwanese Han and have identified five variants, A-1067G, G-347T, T3804A, C27224T, and A27237G. These five variants plus another five taken from the literature and a public database were examined for an association in 108 BPD patients and 103 controls; no association was detected for any of the 10 variants. RESULTS:  ${\tt Haplotype}$  constructions using these 10  ${\tt \bar{SNPs}}$  showed that the 3 most common haplotypes in both patients and controls were identical. One of the fourth common haplotype in the patient group (i.e. GGGAGACCCA) was unique and showed a trend of significance with the **disease** (P = 0.028). However, the significance was abolished after Bonferroni correction thus suggesting the association is weak. In addition, three haplotype-tagged SNPs (htSNPs) were selected to represent all haplotypes with frequencies larger than 2% in the Taiwanese Han population. The defined TPH1 htSNPs significantly reduce the marker number for haplotype analysis thus provides useful information for future association studies in our population. CONCLUSION: Results of this study did not support the role of TPH1 gene in BPD etiology. As the current studies found the TPH1 gene under investigation belongs to the peripheral serotonin system and may link to a cardiac dysfunction phenotype, a second TPH gene that functions predominantly in the brain (i.e., nTPH or TPH2) should be the target for the future association study.

L3 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN Full Text
AN 2005:537962 CAPLUS
DN 143:227194

- TI Polymorphism screening and **haplotype** analysis of the tryptophan hydroxylase gene (TPHI) and association with bipolar affective disorder in Taiwan
- AU Lai, Te-Jen; Wu, Chia-Yen; Tsai, Hsu-Wen; Lin, Yi-Mei J.; Sun, H. Sunny CS Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan
- SO BMC Medical Genetics (2005), 6, No pp. given CODEN: BMGMAR; ISSN: 1471-2350

URL: http://www.biomedcentral.com/content/pdf/1471-2350-6-14.pdf

- PB BioMed Central Ltd.
- DT Journal; (online computer file)
- LA English

AΒ Background: Disturbances in serotonin neurotransmission are implicated in the etiol. of many psychiatric disorders, including bipolar affective disorder (BPD). The tryptophan hydroxylase gene (TPH), which codes for the enzyme catalyzing the rate-limiting step in serotonin biosynthetic pathway, is one of the leading candidate genes for psychiatric and behavioral disorders. In a preliminary study, we found that TPH1 intron 7 A218C polymorphism was assord. with BPD. This study was designed to investigate sequence variants of the TPH1 gene in Taiwanese and to test whether the TPH1 gene is a susceptibility factor for the BPD. Methods: Using a systematic approach, we have searched the exons and promoter region of the TPH1 gene for sequence variants in Taiwanese Han and have identified five variants, A-1067G, G-347T, T3804A, C27224T, and A27237G. These five variants plus another five taken from the literature and a public database were examd. for an assocn. in 108 BPD patients and 103 controls; no assocn. was detected for any of the 10 variants. Results: Haplotype constructions using these 10 SNPs showed that the 3 most common haplotypes in both patients and controls were identical. One of the fourth common haplotype in the patient group (i.e. GGGAGACCCA) was unique and showed a trend of significance with the **disease** (P = 0.028). However, the significance was abolished after Bonferroni correction thus suggesting the assocn. is weak. In addn., three haplotype-tagged SNPs (htSNPs) were selected to represent all haplotypes with frequencies larger than 2% in the Taiwanese Han population. The defined TPH1 htSNPs significantly reduce the marker no. for **haplotype** anal. thus provides useful information for future assocn. studies in our population. Conclusion: Results of this study did not support the role of TPH1 gene in BPD etiol. As the current studies found the TPH1 gene under investigation belongs to the peripheral serotonin system and may link to a cardiac dysfunction phenotype, a second TPH gene that functions predominantly in the brain (i.e., nTPH or TPH2) should be the target for the future assocn. study.

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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Full Text
AN 2004:183046 CAPLUS
DN 140:230610
TI Detection of SNPs and haplotype blocks within human chromosome 21 and association with Long QT Syndrome and hearing disorders
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ANSWER 35 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

IN Cox, David R.; Arnold, Deana A. PA Perlegen Sciences, Inc., USA

SO PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

L3

	PATENT NO.			KIND DATE			APPLICATION NO.					DATE						
PI		vo 2004018701 vo 2004018701						WO 2003-US26469						20030822				
		W: RW:	CO, HU, LU, PL, TZ, GH,	CR, ID, LV, PT, UA, GM,	CU, IL, MA, RO, UZ, KE,	CZ, IN, MD, RU, VC, LS,	DE, IS, MG, SC, VN, MW,	AU, DK, JP, MK, SD, YU, MZ, TM,	DM, KE, MN, SE, ZA, SD,	DZ, KG, MW, SG, ZM, SL,	EC, KP, MX, SK, ZW SZ,	EE, KR, MZ, SL,	ES, KZ, NI, SY, UG,	FI, LC, NO, TJ,	GB, LK, NZ, TM,	GD, LR, OM, TN,	GE, LS, PG, TR,	HR, LT, PH, TT,
	US US	2003 7115 2006 2004	BF, 0776: 726 2342:	BJ, 33	CF,	CG, A1 B2 A9	CI,	IE, CM, 2003 2006 2006 2004	GA, 0424 1003 1019	GN,	GQ, US 2	GW, 002-	ML, 2271	MR, 95	NE,	SN,	TD,	TG 822
	WO	2004 W:	AE, CO,	AG, CR,	AL, CU,	AM, CZ,	AT, DE,	2004 AU, DK, IN,	AZ, DM,	BA, DZ,	BB, EC,	BG, EE,	BR, ES,	BY, FI,	BZ, GB,	CA, GD,	GE,	CN, GH,

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RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG,
             US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 303869 A1 20040830 AU 2003-303869 20030508
     AU 2003303869
     AU 2003269993
                           Α1
                                 20040311
                                              AU 2003-269993
                                                                       20030822
PRAI US 2002-227152
                                  20020822
     US 2002-227195
                                  20020822
                           Α
     US 2001-280530P
                           Р
                                  20010330
     US 2001-313264P
                           Ρ
                                  20010817
     US 2001-166341
                           В2
                                  20010918
     US 2001-323059P
                          P
                                 20010918
     US 2001-327006P
                           Ρ
                                 20011005
     US 2001-332550P
                          P
                                 20011126
     US 2002-106097
                          A2
                                 20020326
     US 2002-142364
                           A1
                                  20020508
     WO 2003-US14799
                           W
                                  20030508
     WO 2003-US26469
                           W
                                 20030822
AΒ
     This invention relates to detection of SNPs and haplotype blocks
     within human chromosome 21 and assocn. with Long QT Syndrome (LQTS) and
     hearing disorders. Linkage studies are discussed, evaluating SNPs in
     the potassium channel genes KCNE1 and KCNE2, found on human chromosome 21
     and assocd. with LQTS and hearing disorders. The SNPs can be used as
     susceptibility biomarkers in diagnosis of LQTS and hearing diseases, as
     well as predicting drug sensitivity in LQTS patients.
     ANSWER 36 OF 41
                          MEDLINE on STN
L3
                                                           DUPLICATE 12
Full Text
     2004190601
ΑN
                     MEDLINE
     PubMed ID: 15088270
DN
     A high-density admixture map for disease gene discovery in african
TΙ
     americans.
ΑU
     Smith Michael W; Patterson Nick; Lautenberger James A; Truelove Ann L;
     McDonald Gavin J; Waliszewska Alicja; Kessing Bailey D; Malasky Michael J;
     Scafe Charles; Le Ernest; De Jager Philip L; Mignault Andre A; Yi Zeng; De
     The Guy; Essex Myron; Sankale Jean-Louis; Moore Jason H; Poku Kwabena;
     Phair John P; Goedert James J; Vlahov David; Williams Scott M; Tishkoff
     Sarah A; Winkler Cheryl A; De La Vega Francisco M; Woodage Trevor; Sninsky
     John J; Hafler David A; Altshuler David; Gilbert Dennis A; O'Brien Stephen
     J; Reich David
CS
     Laboratory of Genomic Diversity, National Cancer Institute, Frederick, MD,
     USA.
ИС
     HL-65234 (United States NHLBI)
     K-01 HG002758-01 (United States NHGRI)
     K08 NS046341 (United States NINDS)
     N01-C0-12400
     U19-AI50864 (United States NIAID)
     American journal of human genetics, (2004 May) Vol. 74, No. 5, pp.
SO
     1001-13. Electronic Publication: 2004-04-14.
     Journal code: 0370475. ISSN: 0002-9297.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
     (RESEARCH SUPPORT, NON-U.S. GOV'T)
     (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
     English
T.A
FS
     Priority Journals
EM
     200406
     Entered STN: 17 Apr 2004
ED
     Last Updated on STN: 4 Jun 2004
     Entered Medline: 3 Jun 2004
     Admixture mapping (also known as "mapping by admixture linkage
AB
     disequilibrium, " or MALD) provides a way of localizing genes that cause
     disease, in admixed ethnic groups such as African Americans, with
     approximately 100 times fewer markers than are required for whole-genome
     haplotype scans. However, it has not been possible to perform
     powerful scans with admixture mapping because the method requires a
     dense map of validated markers known to have large frequency differences
     between Europeans and Africans. To create such a map, we screened through
     databases containing approximately 450000 single-nucleotide
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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, OM, PH, PL, PT,

polymorphisms (SNPs) for which frequencies had been estimated in African and European population samples. We experimentally confirmed the frequencies of the most promising SNPs in a multiethnic panel of unrelated samples and identified 3011 as a MALD map (1.2 cM average spacing). We estimate that this map is approximately 70% informative in differentiating African versus European origins of chromosomal segments. This map provides a practical and powerful tool, which is freely available without restriction, for screening for disease genes in African American patient cohorts. The map is especially appropriate for those diseases that differ in incidence between the parental African and European populations.

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ANSWER 37 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
L3
Full Text
ΑN
     2003:511479 CAPLUS
    139:80261
DN
ΤI
    Polymorphic sites in human metabotropic glutamate receptor mGluR8 gene and
     diagnostic and therapeutic uses thereof
    Hess, John W.; Warren, Lee Evan; Conn, Jeffrey
IN
PA
    Merck & Co., Inc., USA
    PCT Int. Appl., 109 pp.
    CODEN: PIXXD2
DT
    Patent
LA
   English
FAN.CNT 1
    APPLICATION NO.
                                                                  DATE
                               20030703 WO 2002-US41294
PΙ
                                                                   20021219
         W: CA, US
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, SI, SK, TR
                             20030703 CA 2002-2471198
20040915 EP 2002-805679
    CA 2471198 A1
                                                                    20021219
     EP 1456418
                         A2
                                                                   20021219
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, CY, TR, BG, CZ, EE, SK
33321 A1 20051020 US 2
US 2005233321 A1
PRAI US 2001-342555P P
                                            US 2004-499580
                                                                    20040621
                               20011220
     WO 2002-US41294 W
                               20021219
     This invention relates to polymorphisms in the human metabotropic
     glutamate receptor mGluR8 gene, GRM8, and in particular to the discovery
     of 10 single nucleotide polymorphisms in the mGluR8 gene. Five
    polymorphic sites (PS1-PS3, PS6, and PS9) are located in coding exons, one (PS10) affects RNA splicing and results in a truncated polypeptide, and
     four polymorphic sites (PS4, PS5, PS7, and PS8) are located in introns.
     The invention also relates to methods and materials for analyzing allelic
     variation in the mGluR8 gene, and to the use of mGluR8 polymorphisms in
     the diagnosis and treatment of mGluR8 and/or mGluR8-mediated diseases,
     such as Parkinson's disease etc. The herein disclosed probes contg. at
     least one of the herein disclosed SNPs can be used to identify nucleic
     acid samples contg. mGluR8 SNPs or as primers or for expressing variant
     proteins. The invention includes methods of analyzing the polymorphic
     forms occupying the polymorphic sites. The invention further claims use
     of genotypes of the mGluR8 SNPs in treatment of humans with mGluR8
     receptor antagonist drugs. In addn., the invention claims a method for
     screening therapeutic mGluR8 agonists or antagonists by their effects on
     human mGluR8 bioactivity or interactions with binding partners.
L3
    ANSWER 38 OF 41
                        MEDLINE on STN
                                                         DUPLICATE 13
Full Text
     2003281292
ΑN
                   MEDLINE
     PubMed ID: 12808430
TΙ
    Identification of a high-risk haplotype for the dystrobrevin binding
    protein 1 (DTNBP1) gene in the Irish study of high-density schizophrenia
     families.
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van den Oord E J C G; Sullivan P F; Jiang Y; Walsh D; O'Neill F A; Kendler

Behavioral Genetics, Medical College of Virginia, Virginia Commonwealth

Department of Psychiatry and Virginia Institute for Psychiatric and

University, Richmond, VA 23298-0126, USA.. ejvandenoord@vcu.edu

ΑU

CS

ИС

K S; Riley B P

MH41953 (United States NIMH) MH45390 (United States NIMH)

MH52537 (United States NIMH) Molecular psychiatry, (2003 May) Vol. 8, No. 5, pp. 499-510. Journal code: 9607835. ISSN: 1359-4184. England: United Kingdom CY Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) DT LA English FS Priority Journals EM200403 ED Entered STN: 17 Jun 2003 Last Updated on STN: 12 Mar 2004 Entered Medline: 11 Mar 2004

A recent report showed significant associations between several SNPs in AΒ a previously unknown EST cluster with schizophrenia. (1). The cluster was identified as the human dystrobrevin binding protein 1 gene (DTNBP1) by sequence database comparisons and homology with mouse DTNBP1. (2). However, the linkage disequilibrium (LD) among the SNPs in DTNBP1 as well as the pattern of significant SNP-schizophrenia association was complex. This raised several questions such as the number of susceptibility alleles that may be involved and the size of the region where the actual disease mutation(s) could be located. To address these questions, we performed different single-marker tests on the 12 previously studied and 2 new SNPs in DTNBP1 that were re-scored using an improved procedure, and performed a variety of haplotype analyses. The sample consisted of 268 Irish multiplex families selected for high density of schizophrenia. Results suggested a simple structure where the LD in the target region could be explained by 6 haplotypes that together accounted for 96% of haplotype diversity in the whole sample. From these six, a single high-risk haplotype was identified that showed a significant association with schizophrenia and explained the pattern of significant findings in the analyses with individual markers. This haplotype was 30 kb long, had a large effect, could be measured with two tag SNPs only, had a frequency of 6% in our sample, seemed to be of relatively recent origin in evolutionary terms, and was equally distributed over Ireland. Implications of these findings for follow-up and replication studies are discussed.

L3 ANSWER 39 OF 41 MEDLINE on STN DUPLICATE 14

Full Text

AN 2003063510 MEDLINE

DN PubMed ID: 12573264

- TI Single-nucleotide polymorphisms in the Toll-like receptor 9 gene (TLR9): frequencies, pairwise linkage disequilibrium, and **haplotypes** in three U.S. ethnic groups and exploratory case-control **disease** association studies.
- AU Lazarus Ross; Klimecki Walter T; Raby Benjamin A; Vercelli Donata; Palmer Lyle J; Kwiatkowski David J; Silverman Edwin K; Martinez Fernando; Weiss Scott T
- CS Channing Laboratory, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA 02115, USA..

ross.lazarus@channing.harvard.edu NC U01 HL66795 (United States NHLBI)

SO Genomics, (2003 Jan) Vol. 81, No. 1, pp. 85-91. Journal code: 8800135. ISSN: 0888-7543.

CY United States

DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LA English

FS Priority Journals

EM 200309

- ED Entered STN: 8 Feb 2003
  Last Updated on STN: 6 Sep 2003
  Entered Medline: 5 Sep 2003
- AB TLR9 is a mammalian Toll-like receptor homologue that appears to function as an innate immune pattern recognition protein for motifs that are far more common in bacterial than in mammalian DNA. The gene was sequenced in 71 subjects from three self-identified U.S. ethnic groups to identify single-nucleotide polymorphisms (SNPs). A total of 20 SNPs were found of which only 20% were in the public dbSNP database. Four SNPs were relatively common in all three ethnic samples. Using these four SNPs, seven distinct haplotypes were statistically inferred, of which four accounted for 75% or more chromosomes. These four haplotypes could be

distinguished from each other by the alleles of two SNPs (-1237 and 2848). Five exploratory nested case-control disease-association studies (asthma, DVT, MI, and COPD in European Americans and asthma in African Americans) were performed by genotyping DNA collected from four ongoing cohort studies. There was evidence suggesting increased risk for asthma with a C allele at -1237 (odds ratio 1.85, 95%CI 1.05 to 3.25) among European Americans (genotypes available from 67 cases and 152 controls). No other significant disease associations were detected. Replication of this finding in other, larger samples is needed. This study suggests that there is substantial diversity in human TLR9, possibly associated with asthma in Europeans but not African Americans. No association was detected with three other diseases potentially related to innate immunity.

ANSWER 40 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN L3 Full Text 2003:602483 CAPLUS ΑN

DN 139:259338

TΙ Independent mutational events are rare in the ATM gene: haplotype prescreening enhances mutation detection rate

Mitui, Midori; Campbell, Catarina; Coutinho, Gabriela; Sun, Xia; Lai, Chih-Hung; Thorstenson, Yvonne; Castellvi-Bel, Sergi; Fernandez, Luis; Monros, Eugenia; Carvalho, Beatriz Tavares Costa; Porras, Oscar; Fontan, Gumersindo; Gatti, Richard A. ΑU

Department of Pathology and Laboratory Medicine, The David Geffen School CS of Medicine, Los Angeles, CA, USA

SO Human Mutation (2003), 22(1), 43-50CODEN: HUMUE3; ISSN: 1059-7794

PΒ Wiley-Liss, Inc.

DT Journal

English LA

Mutations in the ATM gene are responsible for the autosomal recessive AΒ disorder ataxia-telangiectasia (A-T). Many different mutations have been identified using various techniques, with detection efficiencies ranging from 57 to 85%. In this study, we employed short tandem repeat (STR) haplotypes to enhance mutation identification in 55 unrelated A-T families of Iberian origin (20 Spanish, 17 Brazilian, and 18 Hispanic-American); we were able to identify 95% of the expected mutations. Allelic sizes were standardized based on a ref. sample (CEPH 1347-2). Subsequent mutation screening was performed by PTT, SSCP, and DHPLC, and abnormal regions were sequenced. Many STR haplotypes were found within each population and six haplotypes were obsd. across several of these populations. Single nucleotide polymorphism (SNP) haplotypes further suggested that most of these common mutations are ancestrally related, and not hot spots. However, two mutations (8977C>T and 8264\_8268delATAAG) may indeed be recurring mutational events. Common haplotypes were present in 13 of 20 Spanish A-T families (65%), in 11 of 17 Brazilian A-T families (65%), and, in contrast, in only eight of 18 Hispanic-American families (44%). Three mutations were identified that would be missed by conventional screening strategies. In all, 62 different mutations (28 not previously reported) were identified and their assocd. haplotypes defined, thereby establishing a new database for Iberian A-T families, and extending the spectrum of worldwide ATM mutations.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3
    ANSWER 41 OF 41
                         MEDLINE on STN
Full
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ΑN 2002729804

PubMed ID: 12491775 DN

SNP database and establishment of personalized medicine. ΤI

ΑU Inoue Ituro

CS Division of Genetic Diagnosis, Institute of Medical Science, University of Tokyo, 4-6-1 Shirokanedai, Minato-ku, Tokyo 108-8639, Japan.

Nippon yakurigaku zasshi. Folia pharmacologica Japonica, (2002 Nov) Vol. SO 120, No. 1, pp. 41P-42P. Ref: 0 Journal code: 0420550. ISSN: 0015-5691.

CY Japan

(ENGLISH ABSTRACT) DT Journal; Article; (JOURNAL ARTICLE) General Review; (REVIEW)

LA Japanese FS Priority Journals

EM 200304

ED Entered STN: 21 Dec 2002 Last Updated on STN: 2 Apr 2003 Entered Medline: 1 Apr 2003

We are aiming to identify susceptibility genes for common or otherwise AΒ clinically relevant diseases of metabolism such as diabetes, asthma, and hypertension, and analyze the molecular causality. Although genetic and environmental factors play equally crucial roles in the pathogenesis of the common diseases of civilization, genetic factor is directly involved in the causality and molecular mechanism. The elucidation of molecular etiology provides specific molecular targets for therapeutic drugs even at the individual level. Thus our priority is analysis of the molecular causality of the common metabolic disorders of civilization. We will identify individual and group polymorphisms (SNPs) in the genome relevant to the treatment of individual patients closely related to susceptibility to disease, prognosis of disease, and responses to drugs. To determine the genetic susceptibilities, we apply genetic approaches such as linkage studies with affected sib-pairs and association studies using SNPs database together with haplotype analysis.

=> log h COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	65.68	65.89
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-10.40	-10.40

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:54:11 ON 19 FEB 2008